

CRPL-F 128

Copy 1
FOR OFFICIAL USE

National Bureau of Standards
Library, H.W. Bldg

Reference is not to be
taken from the library.

APR 8 1955

IONOSPHERIC DATA

ISSUED
APRIL 1955

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

IONOSPHERIC DATA

CONTENTS

| | <u>Page</u> |
|---|---------------|
| Symbols, Terminology, Conventions | 2 |
| World-Wide Sources of Ionospheric Data. . . . | 5 |
| Hourly Ionospheric Data at Washington, D. C.. | 7, 13, 26, 52 |
| Ionospheric Storminess at Washington, D. C. . | 7, 38 |
| Sudden Ionosphere Disturbances. | 8, 39 |
| Radio Propagation Quality Figures | 8, 40 |
| Observations of the Solar Corona. | 9, 42 |
| Relative Sunspot Numbers. | 10, 48 |
| Observations of Solar Flares. | 11, 50 |
| Indices of Geomagnetic Activity | 11, 51 |
| Note on C-2 and C-3 Sweep Times | 12 |
| Erratum | 12 |
| Tables of Ionospheric Data. | 13 |
| Graphs of Ionospheric Data. | 52 |
| Index of Tables and Graphs of Ionospheric Data in CRPL-F128. | 91 |

SYMBOLS, TERMINOLOGY, CONVENTIONS

Beginning with data reported for January 1952, the symbols, terminology, and conventions for the determination of median values used in this report (CRPL-F series) conform as far as practicable to those adopted at the Sixth Meeting of the International Radio Consultative Committee (C.C.I.R.) in Geneva, 1951. Excerpts concerning symbols and terminology from Document No. 626-E of this Meeting are given on pages 2-7 of the report CRPL-F89, "Ionospheric Data," issued January 1952. Reprints of these pages are available upon request.

Beginning with data for January 1945, median values are published wherever possible. Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data exist.

The following conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given in Document No. 626-E referred to above.

a. For all ionospheric characteristics:

Values missing because of A, C, F, L, M, N, Q, S, or T are omitted from the median count.

b. For critical frequencies and virtual heights:

Values of foF2 (and foE near sunrise and sunset) missing because of E are counted as equal to or less than the lower limit of the recorder. Values of h'F2 (and h'E near sunrise and sunset) missing for this reason are counted usually as equal to or greater than the median. Other characteristics missing because of E are omitted from the median count.

Values missing because of D are counted as equal to or greater than the upper limit of the recorder.

Values missing because of G are counted:

1. For foF2, as equal to or less than foF1.
2. For h'F2, as equal to or greater than the median.

The symbol W is included in the median count only when it replaces a height characteristic. This practice represents a change from that listed in issues previous to CRPL-F78.

Values missing for any other reason are omitted from the median count.

c. For MUF factor (M-factors):

Values missing because of G or W are counted as equal to or less than the median.

Values missing for any other reason are omitted from the median count.

d. For sporadic E (Es):

Values of fEs missing because of E or G (and B when applied to the daytime E region only) are counted as equal to or less than the median foE, or equal to or less than the lower frequency limit of the recorder.

Values of fEs missing for any other reason, and values of h'Es missing for any reason at all are omitted from the median count.

Beginning with data for November 1945, doubtful monthly median values for ionospheric observations at Washington, D. C., are indicated by parentheses, in accordance with the practice already in use for doubtful hourly values. The following are the conventions used to determine whether or not a median value is doubtful:

1. If only four values or less are available, the data are considered insufficient and no median value is computed.
2. For the F2 layer, if only five to nine values are available, the median is considered doubtful. The E and F1 layers are so regular in their characteristics that, as long as there are at least five values, the median is not considered doubtful.
3. For all layers, if more than half of the values used to compute the median are doubtful (either doubtful or interpolated), the median is considered doubtful.

The same conventions are used by the CRPL in computing the medians from tabulations of daily and hourly data for stations other than Washington, beginning with the tables in IRPL-F18.

The tables and graphs of ionospheric data are correct for the values reported to the CRPL, but, because of variations in practice in the interpretation of records and scaling and manner of reporting of values, may at times give an erroneous conception of typical ionospheric characteristics at the station. Some of the errors are due to:

- a. Differences in scaling records when spread echoes are present.
- b. Omission of values when f_oF_2 is less than or equal to f_oF_1 , leading to erroneously high values of monthly averages or median values.
- c. Omission of values when critical frequencies are less than the lower frequency limit of the recorder, also leading to erroneously high values of monthly average or median values.

These effects were discussed on pages 6 and 7 of the previous F-series report IRPL-F5.

Ordinarily, a blank space in the fEs column of a table is the result of the fact that a majority of the readings for the month are below the lower limit of the recorder or less than the corresponding values of f_oE . Blank spaces at the beginning and end of columns of $h'F_1$, f_oF_1 , $h'E$, and f_oE are usually the result of diurnal variation in these characteristics. Complete absence of medians of $h'F_1$ and f_oF_1 is usually the result of seasonal effects.

The dashed-line prediction curves of the graphs of ionospheric data are obtained from the predicted zero-muf contour charts of the CRPL-D series publications. The following points are worthy of note:

- a. Predictions for individual stations used to construct the charts may be more accurate than the values read from the charts since some smoothing of the contours is necessary to allow for the longitude effect within a zone. Thus, inasmuch as the predicted contours are for the center of each zone, part of the discrepancy between the predicted and observed values as given in the F series may be caused by the fact that the station is not centrally located within the zone.
- b. The final presentation of the predictions is dependent upon the latest available ionospheric and radio propagation data, as well as upon predicted sunspot number.
- c. There is no indication on the graphs of the relative reliability of the data; it is necessary to consult the tables for such information.

The following predicted smoothed 12-month running-average Zürich sunspot numbers were used in constructing the contour charts:

| Month | Predicted Sunspot Number | | | | | | | | | | |
|-----------|--------------------------|------|------|------|------|------|------|------|------|------|------|
| | 1955 | 1954 | 1953 | 1952 | 1951 | 1950 | 1949 | 1948 | 1947 | 1946 | 1945 |
| December | | 11 | 15 | 33 | 53 | 86 | 108 | 114 | 126 | 85 | 38 |
| November | | 10 | 16 | 38 | 52 | 87 | 112 | 115 | 124 | 83 | 36 |
| October | | 10 | 17 | 43 | 52 | 90 | 114 | 116 | 119 | 81 | 23 |
| September | | 8 | 18 | 46 | 54 | 91 | 115 | 117 | 121 | 79 | 22 |
| August | | 8 | 18 | 49 | 57 | 96 | 111 | 123 | 122 | 77 | 20 |
| July | | 8 | 20 | 51 | 60 | 101 | 108 | 125 | 116 | 73 | |
| June | | 9 | 21 | 52 | 63 | 103 | 108 | 129 | 112 | 67 | |
| May | | 10 | 22 | 52 | 68 | 102 | 108 | 130 | 109 | 67 | |
| April | | 10 | 24 | 52 | 74 | 101 | 109 | 133 | 107 | 62 | |
| March | 14 | 11 | 27 | 52 | 78 | 103 | 111 | 133 | 105 | 51 | |
| February | 14 | 12 | 29 | 51 | 82 | 103 | 113 | 133 | 90 | 46 | |
| January | 12 | 14 | 30 | 53 | 85 | 105 | 112 | 130 | 88 | 42 | |

WORLD - WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 78 and figures 1 to 156 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Commonwealth of Australia, Ionospheric Prediction Service of the Commonwealth Observatory:

Brisbane, Australia
 Canberra, Australia
 Hobart, Tasmania
 Townsville, Australia

Commonwealth of Australia, Department of External Affairs:
 Macquarie I.

University of Graz:
 Graz, Austria

Meteorological Service of the Belgian Congo and Ruanda-Urundi:
 Leopoldville, Belgian Congo

University of Sao Paulo:
 Sao Paulo, Brazil

British Department of Scientific and Industrial Research, Radio Research Board:
 Falkland Is.
 Inverness, Scotland
 Port Lockroy
 Singapore, British Malaya
 Slough, England

Defence Research Board, Canada:

Baker Lake, Canada
Churchill, Canada
Ottawa, Canada
Resolute Bay, Canada
Winnipeg, Canada

Radio Wave Research Laboratories, National Taiwan University,
Taipeh, Formosa, China:
Formosa, China

Institute for Ionospheric Research, Lindau Uber Northeim, Hannover,
Germany:
Lindau/Harz, Germany

The Royal Netherlands Meteorological Institute:
De Bilt, Holland

Icelandic Post and Telegraph Administration:
Reykjavik, Iceland

All India Radio (Government of India), New Delhi, India:
Bombay, India
Delhi, India
Madras, India
Tiruchy (Tiruchirapalli), India

Indian Council of Scientific and Industrial Research, Radio Research
Committee:
Calcutta, India

Ministry of Postal Services, Radio Research Laboratories, Tokyo,
Japan:
Akita, Japan
Tokyo (Kokubunji), Japan
Wakkanai, Japan
Yamagawa, Japan

Christchurch Geophysical Observatory, New Zealand Department of
Scientific and Industrial Research:
Christchurch, New Zealand
Rarotonga, Cook Is.

Norwegian Defence Research Establishment, Kjeller per Lillestrom,
Norway:
Oslo, Norway
Tromso, Norway

Manila Observatory:
Baguio, P. I.

South African Council for Scientific and Industrial Research:
 Capetown, Union of South Africa
 Johannesburg, Union of South Africa
 Nairobi, Kenya (East African Meteorological Department)

Research Laboratory of Electronics, Chalmers University of Technology, Gothenburg, Sweden:
 Kiruna, Sweden

Research Institute of National Defence, Stockholm, Sweden:
 Upsala, Sweden

Royal Board of Swedish Telegraphs, Radio Department, Stockholm, Sweden:
 Lulea, Sweden

Post, Telephone and Telegraph Administration, Berne, Switzerland:
 Schwarzenburg, Switzerland

United States Army Signal Corps:
 Adak, Alaska
 Okinawa I.
 White Sands, New Mexico

National Bureau of Standards (Central Radio Propagation Laboratory):
 Anchorage, Alaska
 Fairbanks, Alaska (Geophysical Institute of the University of Alaska)
 Guam I.
 Huancayo, Peru (Instituto Geofisico de Huancayo)
 Maui, Hawaii
 Narsarssuak, Greenland
 Panama Canal Zone
 Puerto Rico, W. I.
 San Francisco, California (Stanford University)
 Washington, D. C.

HOURLY IONOSPHERIC DATA AT WASHINGTON, D. C.

The data given in tables 79 through 90 follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference," pages 36 to 39, and the median values are determined by the conventions given above under "Symbols, Terminology, Conventions." Beginning with September 1949, the data are taken at Ft. Belvoir, Virginia.

IONOSPHERIC STORMINESS AT WASHINGTON, D.C.

Table 91 presents ionosphere character figures for Washington, D. C., during March 1955, as determined by the criteria given in the

report IRPL-R5, "Criteria for Ionospheric Storminess," together with Cheltenham, Maryland, geomagnetic K-figures, which are usually covariant with them.

SUDDEN IONOSPHERE DISTURBANCES

Table 92 shows that no sudden ionosphere disturbances were observed at Ft. Belvoir, Virginia, during the month of March 1955.

RADIO PROPAGATION QUALITY FIGURES

Tables 93a and 93b give for February 1955 the radio propagation quality figures for the North Atlantic area, the relevant CRPL advance and short-term forecasts, a summary geomagnetic activity index and sundry comparisons, specifically as follows:

- (a) radio propagation quality figures, Qa, separately for each 6-hour interval of the Greenwich day, viz., 00-06, 06-12, 12-18, 18-24 hours UT (Universal Time or GCT).
- (b) whole-day radio quality indices (beginning October 1952). Each index is a weighted average of the four quarter-day Qa-figures, before rounding off, with half weight given to quality grades 5 and 6. This procedure tends to give whole-day indices suitable for comparison with whole-day advance forecasts which designate whenever possible the days when significant disturbance or unusually quiet conditions will occur.
- (c) short-term forecasts, issued by CRPL every six hours (nominally one hour before 00^h, 06^h, 12^h, 18^h UT) and applicable to the period 1 to 13 (especially 1 to 7) hours ahead. Note that new scoring rules have been adopted beginning with October 1952 data.
- (d) advance forecasts, issued semiweekly (CRPL-J reports) and applicable 1 to 3 or 4 days ahead, 4 or 5 to 7 days ahead, and 8 to 25 days ahead. These forecasts are scored against the whole-day quality indices.
- (e) half-day averages of the geomagnetic K indices measured by the Cheltenham Magnetic Observatory of the U. S. Coast and Geodetic Survey.
- (f) illustration of the comparison of short-term forecasts with Qa-figures and also with estimates of radio quality based on CRPL observations only.
- (g) illustration of the outcome of advance forecasts (1 to 3 or 4 days ahead) and, for comparison, the outcome of a type of "blind" forecast. For the latter the frequency for each quality grade, as determined from the distribution of quality grades in the four most recent months of the current season, is partitioned among the grades observed in the current month in proportion to the frequencies observed in the current month.

These radio propagation quality figures, Qa, are prepared from radio traffic data reported to CRPL by American Telephone and Telegraph Company, Mackay Radio and Telegraph Company, RCA Communications, Inc., Marconi Company, British Admiralty Signal and Radar Establishment, and the following agencies of the U. S. Government:--Coast Guard, Navy, Army Signal Corps, and U. S. Information Agency. The method of calculation, summarized below, is similar to that described in a 1946 report, IRPL-R31, now out of print. Only reports of radio transmission on North Atlantic paths closely approximating New York-London are included in the estimation of quality.

The original reports are submitted on various scales and for various time intervals. The observations for each 6-hour interval are averaged on the quality scale of the original reports. These 6-hour indices are then adjusted to the 1 to 9 quality-figure scale by a conversion table prepared by comparing the distribution of these indices for at least four months, usually a year, with a master distribution determined from analysis of the reports originally made on the 1 to 9 quality-figure scale. A report whose distribution is the same as the master is thereby converted linearly to the Q-figure scale. The 6-hourly quality figures are (subjectively) weighted means of the reports received for that period. These 6-hourly quality figures replace, beginning January 1953, the half-daily quality figures which formerly appeared in this table. (These forecasts and quality indices are prepared by the North Atlantic Radio Warning Service, the CRPL forecasting center at Ft. Belvoir, Virginia.)

These quality figures are, in effect, a consensus of reported radio propagation conditions. The reasons for low quality are not necessarily known and may not be limited to ionospheric storminess. For instance, low quality may result from improper frequency usage for the path and time of day. Although, wherever it is reported, frequency usage is included in the rating of reports, it must often be an assumption that the reports refer to optimum working frequencies. It is more difficult to eliminate from the indices conditions of low quality because of multipath, interference, etc. These considerations should be taken into account in interpreting research correlations between the Q-figures and solar, auroral, geomagnetic or similar indices.

Note: A tabulation of forecasts for the North Pacific area and comparisons with observed radio propagation conditions will appear in a later issue.

OBSERVATIONS OF THE SOLAR CORONA

Tables 94 through 96 give the observations of the solar corona during March 1955, obtained at Climax, Colorado, by the High Altitude Observatory of Harvard University and the University of Colorado. Tables 97 through 99 list the coronal observations obtained at

Sacramento Peak, New Mexico, during March 1955, derived by Harvard College Observatory as a part of its performance of a research contract with the Upper Air Research Observatory, Geophysical Research Directorate, Air Force Cambridge Research Center. The data are listed separately for east and west limbs at 5-degree intervals of position angle north and south of the Solar Equator at the limb. The time of observation is given to the nearest tenth of a day, GCT.

Beginning with January 1, 1955, the Climax, Colorado, coronal measurements are reported in absolute units rather than on the arbitrary relative scale that has been used in the past. Absolute intensities are given in millionths of the intensity in one angstrom of the spectrum of the center of the solar disk at the wavelength of the coronal line. Two conversion tables from arbitrary relative to absolute units were published in CRPL-F127, March 1955. One table gave the green-line conversions to absolute units applicable for all readings made since 1943. The other table gave the red-line conversions applicable for the years 1952 to the present. For earlier years a table is available from the High Altitude Observatory, Boulder, Colorado, showing changes in red-green sensitivity. Absolute yellow-line ($\lambda 5694$) intensities may be obtained approximately by multiplying the values in the $\lambda 5303$ table by 0.75. Absolute far red ($\lambda 6702$) may be obtained approximately by multiplying the values in the $\lambda 6374$ table by 0.9.

The Sacramento Peak measurements will continue to be on an arbitrary relative scale.

Table 94 gives the intensities of the green (5303A) line of the emission spectrum of the solar corona; table 95 gives similarly the intensities of the first red (6374A) coronal line; and table 96, the intensities of the second red (6702A) coronal line; all observed at Climax in March 1955.

Table 97 gives the intensities of the green (5303A) coronal line; table 98, the intensities of the first red (6374A) coronal line; and table 99, the intensities of the second red (6702A) coronal line; all observed at Sacramento Peak in March 1955.

The following symbols are used in tables 94 through 99; a, observation of low weight for whole limb (if in date column) or for portion of limb indicated; -, coronal not visible; and X, no observation for whole limb (if in date column) or for portion of limb indicated.

RELATIVE SUNSPOT NUMBERS

Table 100 lists the daily provisional Zürich relative sunspot number, RZ, for March 1955, as communicated by the Swiss Federal Observatory. Table 101 contains the daily American relative sunspot number, RA^o, for February 1955, as compiled by the Solar Division, American Association of Variable Star Observers.

OBSERVATIONS OF SOLAR FLARES

Table 102 gives the preliminary record of solar flares reported to the CRPL. These reports are communicated on a rapid schedule at the sacrifice of detailed accuracy. Definitive and complete records are published later in the Quarterly Bulletin of Solar Activity, I.A.U., in various observatory publications, and elsewhere. The present listing serves to identify and roughly describe the phenomena observed. Details should be sought from the reporting observatory.

Reporting directly to the CRPL are the following observatories: Mt. Wilson, McMath-Hulbert, U. S. Naval, Wendelstein, Kanzel and High Altitude at Sacramento Peak, New Mexico. The remainder report to Meudon (Paris) and the data are taken from the Paris-URS Igram broadcast, monitored fairly regularly by the CRPL. The data on solar flares reported from Sacramento Peak, New Mexico, communicated by the High Altitude Observatory at Boulder, Colorado, are provided by Harvard University as the result of work undertaken on an Air Materiel Command Research and Development Contract administered by the Air Force Cambridge Research Laboratories.

The table lists for each flare the reporting observatory, date, times of beginning and ending of observation, duration (when known), total area (corrected for foreshortening), and heliographic coordinates. For the maximum phase of the flare is given the time, intensity, area relative to the total area, and the importance. The column "SID observed" is to indicate when a sudden ionosphere disturbance, noted elsewhere in these reports, occurred at the time of a flare. Times are in Universal Time (GCT).

INDICES OF GEOMAGNETIC ACTIVITY

Table 103 lists various indices of geomagnetic activity based on data from magnetic observatories widely distributed throughout the world. The indices are: (1) preliminary international characters, C; (2) geomagnetic planetary three-hour-range indices, Kp; (3) daily "equivalent amplitude" Ap; (4) magnetically selected quiet and disturbed days.

The C-figure is the arithmetic mean of the subjective classification by all observatories of each day's magnetic activity on a scale of 0 (quiet) to 2 (storm). The magnetically quiet and disturbed days are selected by the international scheme outlined on pages 219-227 in the December 1943 issue of Terrestrial Magnetism and Atmospheric Electricity. The details of the currently used method follow. For each day of a month, its geomagnetic activity is assigned by weighting equally the following three criteria: (1) the sum of the eight Kp's; (2) the greatest Kp; and (3) the sum of the squares of the eight Kp's.

Kp is the mean standardized K-index from 11 observatories between geomagnetic latitudes 47 and 63 degrees. The scale is 0 (very quiet) to 9 (extremely disturbed), expressed in thirds of a unit, e.g., 5- is $4 \frac{2}{3}$, 5o is $5 \frac{0}{3}$, and 5+ is $5 \frac{1}{3}$. This planetary index is designed to measure solar particle-radiation by its magnetic effects, specifically to meet the needs of research workers in the ionospheric field. A complete description of Kp has appeared in Bulletin 12b, "Geomagnetic Indices C and K, 1948," published in Washington, D. C., 1949, by the Association of Terrestrial Magnetism and Electricity, International Union of Geodesy and Geophysics.

Ap indicates magnetic activity on a linear scale rather than the quasi-logarithmic scale of the K-indices. The column headed Ap gives the daily average for the eight values ap per day, where ap is defined as one-half the average gamma range of the most disturbed of the three force components, in the three-hour interval at standard stations. Ap is computed from the 8 indices Kp per day, see IATME Bulletin No. 12h (for 1953), p. VIII f. Values of Ap (like Kp and Cp) have been published for the Polar Year 1932/33 and currently since January 1937.

The Committee on Characterization of Magnetic Disturbance, ATME, IUGG, has kindly supplied this table. The Meteorological Office, De Bilt, Holland, collects the data and compiles C and selected days. The Chairman of the Committee computes the planetary index. Current tables are also published quarterly in the Journal of Geophysical Research along with data on sudden commencements (sc) and solar flare effects (sfe).

NOTE ON C-2 AND C-3 SWEEP TIMES

Both C-2 and C-3 type automatic ionosphere recorders, when operating on regulated 60 or 50 c/s central power, have actual sweep times equal to 0.9 times the commonly used nominal sweep times. In the past, we have included the retrace time which is 10 percent of the total time it takes the equipment to go from one Mc to one Mc on the next sweep.

Beginning with this issue, F-128, sweeps taken on C-2 and C-3 type recorders, hitherto reported as from 1.0 to 25.0 Mc in 30, 18, or 15 seconds, will be given as taking 27, 16.2, or 13.5 seconds respectively.

ERRATUM

- CRPL-F127, p. 15, table 14: The heading of the column at the extreme right should be (M2000)F2.
 p. 60, fig. 27: The caption at the upper right should be (M2000)F2.

TABLES OF IONOSPHERIC DATA

Table 1

| Washington, D. C. (38.7°N, 77.1°W) March 1955 | | | | | | | |
|---|-------------------|------|-------------------|------|------------------|-----|---------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs (M3000)F2 |
| 00 | (280) | 2.4 | | | | | 3.0 |
| 01 | (280) | 2.4 | | | | | 3.0 |
| 02 | (280) | 2.4 | | | | | 3.0 |
| 03 | (200) | 2.4 | | | | | 3.1 |
| 04 | 270 | 2.3 | | | | | 3.1 |
| 05 | (270) | 2.2 | | | | | 3.1 |
| 06 | 250 | 2.5 | | | | | 3.2 |
| 07 | 250 | 3.8 | 230 | --- | 120 | 1.8 | 3.5 |
| 08 | 270 | 4.3 | 220 | 3.5 | 110 | 2.2 | 3.5 |
| 09 | 300 | 4.6 | 200 | 3.0 | 110 | 2.5 | 3.0 |
| 10 | 310 | 5.0 | 200 | 4.0 | 110 | 2.8 | 3.0 |
| 11 | 330 | 5.1 | 190 | 4.1 | 100 | 2.9 | 3.1 |
| 12 | 320 | 5.1 | 200 | 4.2 | 100 | 3.0 | 3.2 |
| 13 | 330 | 5.3 | 210 | 4.1 | 110 | 3.0 | 3.1 |
| 14 | 320 | 5.4 | 210 | 4.0 | 110 | 2.9 | 3.2 |
| 15 | 310 | 5.4 | 220 | 3.9 | 110 | 2.8 | 3.2 |
| 16 | 290 | 5.4 | 220 | 3.6 | 110 | 2.5 | 3.3 |
| 17 | 260 | 5.2 | 230 | --- | 120 | 2.1 | 3.3 |
| 18 | 230 | 5.0 | 240 | --- | | | 3.4 |
| 19 | 230 | 4.7 | | | | | 3.3 |
| 20 | 230 | 3.8 | | | | | 3.3 |
| 21 | 250 | 3.2 | | | | | 3.2 |
| 22 | 270 | 2.8 | | | | | 3.1 |
| 23 | (280) | 2.6 | | | | | 3.1 |

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 2

| Narsarsuaq, Greenland (61.2°N, 45.4°W) February 1955 | | | | | | | |
|--|-------------------|-------|-------------------|-------|------------------|-----|---------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs (M3000)F2 |
| 00 | --- | --- | | | | | 4.2 |
| 01 | --- | --- | | | | | 4.7 |
| 02 | --- | --- | | | | | 4.7 |
| 03 | --- | --- | | | | | 4.4 |
| 04 | --- | --- | | | | | 4.8 |
| 05 | --- | --- | | | | | 4.4 |
| 06 | (200) | (1.6) | | | | | 3.8 |
| 07 | (300) | (1.8) | | | | | 2.3 |
| 08 | 250 | 3.1 | | | | | 3.4 |
| 09 | 260 | 3.9 | 240 | --- | | | 3.45 |
| 10 | 270 | 4.2 | 220 | 3.2 | --- | --- | 3.4 |
| 11 | 280 | 4.4 | 220 | 3.3 | --- | --- | 3.3 |
| 12 | 280 | 4.6 | 220 | 3.4 | --- | --- | 3.5 |
| 13 | 280 | 4.5 | 230 | 3.4 | --- | --- | 3.3 |
| 14 | 270 | 4.5 | 230 | 3.4 | --- | --- | 3.3 |
| 15 | 260 | 4.2 | 230 | (3.2) | --- | --- | 3.3 |
| 16 | 260 | 3.9 | --- | --- | --- | --- | 2.5 |
| 17 | 260 | 3.6 | --- | --- | --- | --- | 3.6 |
| 18 | 250 | 3.0 | | | | | 3.3 |
| 19 | --- | (2.3) | | | | | 3.9 |
| 20 | --- | (2.2) | | | | | 5.2 |
| 21 | --- | (2.2) | | | | | 5.8 |
| 22 | --- | --- | | | | | 6.2 |
| 23 | --- | --- | | | | | 6.0 |

Time: 45.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 3

| Oslo, Norway (60.0°N, 11.1°E) February 1955 | | | | | | | |
|---|-------------------|-------|-------------------|-------|------------------|-------|---------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs (M3000)F2 |
| 00 | --- | (1.6) | | | | | --- |
| 01 | --- | 1.7 | | | | | 2.2 |
| 02 | --- | 1.5 | | | | | 3.05 |
| 03 | --- | 1.5 | | | | | 2.95 |
| 04 | --- | 1.4 | | | | | 3.0 |
| 05 | --- | 1.5 | | | | | (1.9) |
| 06 | --- | 1.4 | | | | | (2.8) |
| 07 | --- | 1.8 | | | | | 3.0 |
| 08 | 235 | 3.3 | 225 | --- | --- | (1.6) | 1.8 |
| 09 | 225 | 4.2 | 220 | --- | 110 | 1.7 | 2.0 |
| 10 | 230 | 4.7 | 215 | --- | (110) | 2.0 | 2.2 |
| 11 | 230 | 4.0 | 210 | (3.4) | 110 | 2.3 | 2.6 |
| 12 | 240 | 5.5 | 210 | (3.6) | 115 | 2.3 | 2.5 |
| 13 | 235 | 5.2 | 215 | --- | 110 | 2.3 | 2.4 |
| 14 | 240 | 5.3 | 220 | --- | 110 | 2.2 | 2.4 |
| 15 | 230 | 5.1 | 225 | --- | 115 | 2.0 | 2.4 |
| 16 | 225 | 4.8 | 230 | --- | 125 | 1.8 | 1.3 |
| 17 | 225 | 4.4 | --- | --- | --- | --- | 2.4 |
| 18 | (230) | 3.9 | | | | | (2.8) |
| 19 | --- | 3.4 | | | | | (3.0) |
| 20 | --- | 2.5 | | | | | (2.7) |
| 21 | --- | 2.0 | | | | | 3.1 |
| 22 | --- | 1.8 | | | | | (3.0) |
| 23 | --- | (1.6) | | | | | --- |

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 4

| Uppsala, Sweden (59.8°N, 17.6°E) February 1955 | | | | | | | |
|--|-------------------|-------|-------------------|-------|------------------|-----|---------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs (M3000)F2 |
| 00 | (350) | (1.8) | | | | | 2.6 |
| 01 | 340 | (1.8) | | | | | 2.5 |
| 02 | 310 | (2.0) | | | | | 2.4 |
| 03 | 320 | (1.8) | | | | | 2.6 |
| 04 | 340 | (1.8) | | | | | 2.5 |
| 05 | (350) | (1.6) | | | | | 2.5 |
| 06 | (340) | (1.5) | | | | | 2.4 |
| 07 | 260 | 2.3 | | | --- | E | 2.2 |
| 08 | 230 | 3.6 | 225 | (2.5) | --- | E | 2.3 |
| 09 | 235 | 4.4 | 215 | 2.8 | 120 | 1.8 | 2.4 |
| 10 | 240 | 4.8 | 210 | 3.1 | 115 | 2.0 | 2.3 |
| 11 | 245 | 5.0 | 210 | 3.3 | 110 | 2.1 | 2.5 |
| 12 | 240 | 5.3 | 210 | 3.4 | 110 | 2.2 | 2.3 |
| 13 | 245 | 5.3 | 210 | 3.2 | 115 | 2.2 | 2.4 |
| 14 | 240 | 5.4 | 215 | 3.1 | 120 | 2.0 | 2.4 |
| 15 | 235 | 5.2 | 225 | 2.9 | 125 | 1.8 | 2.3 |
| 16 | 225 | 4.8 | --- | --- | --- | 1.6 | 1.7 |
| 17 | 230 | 4.2 | | | --- | E | 3.25 |
| 18 | 240 | 3.6 | | | | | 3.1 |
| 19 | 240 | 3.0 | | | | | 3.0 |
| 20 | 270 | 2.4 | | | | | 3.0 |
| 21 | 300 | (2.0) | | | | | 3.0 |
| 22 | 300 | (1.8) | | | | | (3.0) |
| 23 | (370) | (1.6) | | | | | --- |

Time: 15.0°E.
Sweep: 1.4 Mc to 17.0 Mc in 6 minutes, automatic operation.

Table 5

| Adak, Alaska (51.9°N, 176.6°W) February 1955 | | | | | | | |
|--|-------------------|------|-------------------|------|------------------|-----|---------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs (M3000)F2 |
| 00 | 260 | 2.8 | | | | | 3.0 |
| 01 | 250 | 2.8 | | | | | 3.1 |
| 02 | 260 | 2.8 | | | | | 3.1 |
| 03 | 260 | 2.9 | | | | | 3.0 |
| 04 | 260 | 2.8 | | | | | 3.1 |
| 05 | 250 | 2.9 | | | | | 3.1 |
| 06 | 240 | 2.9 | | | | | 3.2 |
| 07 | 220 | 4.0 | | | | | 3.6 |
| 08 | 210 | 5.0 | 200 | --- | 110 | 1.9 | 2.1 |
| 09 | 220 | 5.6 | 200 | --- | 110 | 2.3 | 2.4 |
| 10 | 230 | 6.2 | 210 | 3.6 | 110 | 2.5 | 3.65 |
| 11 | 220 | 6.4 | 200 | 3.8 | 110 | 2.6 | 3.6 |
| 12 | 230 | 6.4 | 210 | --- | 110 | 2.6 | 3.5 |
| 13 | 230 | 6.2 | 200 | 3.5 | 110 | 2.6 | 3.6 |
| 14 | 220 | 6.2 | 210 | --- | 110 | 2.4 | 3.6 |
| 15 | 220 | 6.0 | 220 | --- | 110 | 2.2 | 3.6 |
| 16 | 210 | 5.7 | | | 120 | 2.0 | 2.1 |
| 17 | 210 | 5.0 | | | --- | --- | 1.6 |
| 18 | 200 | 3.9 | | | | | 3.4 |
| 19 | 220 | 2.8 | | | | | 3.5 |
| 20 | 220 | 2.4 | | | | | 3.5 |
| 21 | 240 | 2.2 | | | | | 3.2 |
| 22 | 250 | 2.5 | | | | | 3.1 |
| 23 | 250 | 2.6 | | | | | 3.1 |

Time: 180.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 6

| Graz, Austria (47.1°N, 15.5°E) February 1955 | | | | | | | |
|--|-------------------|------|-------------------|------|------------------|-----|---------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs (M3000)F2 |
| 00 | 290 | 3.3 | | | | | 3.4 |
| 01 | 290 | 3.4 | | | | | 3.4 |
| 02 | 290 | 3.4 | | | | | 3.4 |
| 03 | 300 | 3.4 | | | | | 3.4 |
| 04 | 290 | 3.2 | | | | | 3.2 |
| 05 | 280 | 3.0 | | | | | 3.0 |
| 06 | --- | 2.4 | | | | | 2.4 |
| 07 | 250 | 3.7 | | | | | 3.7 |
| 08 | 230 | 4.0 | | | | | 4.0 |
| 09 | 230 | 5.3 | 210 | 3.5 | | | 3.5 |
| 10 | 240 | 5.4 | 210 | 3.8 | | | 3.8 |
| 11 | 250 | 6.4 | 220 | 4.0 | | | 4.0 |
| 12 | 240 | 6.5 | 210 | 4.0 | | | 4.0 |
| 13 | 245 | 6.0 | 200 | 3.9 | | | 3.9 |
| 14 | 240 | 5.4 | 210 | 3.8 | | | 3.8 |
| 15 | 240 | 5.3 | 205 | 3.3 | | | 3.3 |
| 16 | 230 | 5.5 | --- | --- | | | --- |
| 17 | 220 | 5.2 | | | | | 5.2 |
| 18 | 240 | 4.2 | | | | | 4.2 |
| 19 | 250 | 4.0 | | | | | 4.0 |
| 20 | 250 | 3.9 | | | | | 3.9 |
| 21 | 260 | 3.5 | | | | | 3.5 |
| 22 | 270 | 3.3 | | | | | 3.3 |
| 23 | 275 | 3.2 | | | | | 3.2 |

Time: 15.0°E.
Sweep: 2.5 Mc to 12.0 Mc in 2 minutes.

Table 7

Schwarzenburg, Switzerland (46.8°N, 7.3°E)

February 1955

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|------|------|------|------|------|-----|-----|-----|-----------|
| 00 | 250 | 3.1 | | | | | | 3.3 |
| 01 | 260 | 3.2 | | | | | | 3.3 |
| 02 | 260 | 3.3 | | | | | | 3.3 |
| 03 | 280 | 3.2 | | | | | | 3.3 |
| 04 | 280 | 3.0 | | | | | | 3.3 |
| 05 | 260 | 3.0 | | | | | | 3.3 |
| 06 | 250 | 2.4 | | | | | | 3.5 |
| 07 | 220 | 2.6 | | | | | | 3.6 |
| 08 | 200 | 4.3 | | | --- | --- | | 3.8 |
| 09 | 200 | 5.0 | | | 100 | 2.0 | | 4.0 |
| 10 | 200 | 5.6 | | | 100 | 2.5 | | 3.8 |
| 11 | 200 | 5.8 | | | 100 | 2.7 | | 3.8 |
| 12 | 200 | 6.0 | | | 100 | 2.8 | | 3.8 |
| 13 | 200 | 6.1 | | | 100 | 2.8 | | 3.8 |
| 14 | 200 | 5.8 | | | 100 | 2.7 | | 3.8 |
| 15 | 200 | 5.6 | | | 100 | 2.6 | | 3.7 |
| 16 | 200 | 6.0 | | | 100 | 2.3 | | 3.8 |
| 17 | 200 | 5.7 | | | 100 | 1.9 | | 3.8 |
| 18 | 200 | 4.8 | | | | | | 3.6 |
| 19 | 210 | 4.4 | | | | | | 3.5 |
| 20 | 200 | 4.2 | | | | | | 3.6 |
| 21 | 210 | 3.6 | | | | | | 3.6 |
| 22 | 230 | 3.3 | | | | | | 3.4 |
| 23 | 250 | 3.3 | | | | | | 3.35 |

Time: 15.0°E.

Sweep: 1.0 Mc to 25.0 Mc in 30 seconds.

Table 9

White Sands, New Mexico (32.3°N, 106.5°W)

February 1955

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|------|-------|-------|------|-------|-----|-------|-------|-----------|
| 00 | 260 | 3.1 | | | | | 2.5 | 3.0 |
| 01 | 270 | 3.1 | | | | | | 3.0 |
| 02 | 250 | 3.2 | | | | | | 3.1 |
| 03 | 250 | 3.1 | | | | | 2.2 | 3.2 |
| 04 | 240 | 3.1 | | | | | (2.3) | 3.3 |
| 05 | 250 | 3.0 | | | | | 2.5 | 3.2 |
| 06 | 250 | (2.9) | | | | | 2.9 | 3.05 |
| 07 | 230 | 4.3 | | | | | 3.3 | 3.4 |
| 08 | 230 | 5.7 | 220 | --- | 110 | 2.3 | 3.6 | 3.5 |
| 09 | 250 | 6.0 | 220 | (3.9) | 110 | (2.7) | 3.9 | 3.4 |
| 10 | 260 | 6.5 | 220 | 4.3 | 110 | 2.9 | 4.0 | 3.4 |
| 11 | 280 | 6.8 | 210 | 4.3 | 110 | (3.0) | 5.0 | 3.3 |
| 12 | 280 | 7.2 | 210 | 4.4 | 110 | 3.1 | 4.6 | 3.3 |
| 13 | 270 | 7.2 | 210 | 4.4 | 110 | 3.1 | 4.2 | 3.2 |
| 14 | 270 | 7.6 | 220 | 4.3 | 110 | 3.0 | 4.0 | 3.3 |
| 15 | 250 | 7.2 | 220 | 4.0 | 110 | 2.8 | 3.9 | 3.4 |
| 16 | 240 | 6.4 | 230 | (3.5) | 110 | 2.5 | 4.3 | 3.4 |
| 17 | 230 | 6.0 | --- | --- | 120 | 2.0 | 3.8 | 3.5 |
| 18 | 220 | 4.9 | | | | | 3.6 | 3.5 |
| 19 | 220 | 3.4 | | | | | 3.3 | 3.5 |
| 20 | 240 | 2.8 | | | | | 2.6 | 3.35 |
| 21 | (250) | 2.8 | | | | | 3.2 | 3.1 |
| 22 | 260 | 3.0 | | | | | 2.3 | 3.1 |
| 23 | 270 | 3.0 | | | | | 2.4 | 3.0 |

Time: 105.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 11

Formosa, China (25.0°N, 121.5°E)

February 1955

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|------|------|------|------|------|-----|-----|-----|-----------|
| 00 | 280 | 3.4 | | | | | 2.2 | 2.8 |
| 01 | 280 | 3.2 | | | | | 2.4 | 3.0 |
| 02 | 260 | 3.2 | | | | | 2.4 | 2.9 |
| 03 | 250 | 3.0 | | | | | 2.2 | 3.05 |
| 04 | 240 | 2.6 | | | | | 2.0 | 3.2 |
| 05 | 280 | 2.2 | | | | | 2.0 | 3.2 |
| 06 | <320 | 2.2 | | | | | 2.0 | 2.8 |
| 07 | 240 | 4.9 | | | --- | --- | | 3.4 |
| 08 | 250 | 6.5 | 230 | 3.7 | 120 | 2.4 | 2.7 | 3.3 |
| 09 | 280 | 6.7 | 240 | 4.2 | 120 | 2.9 | 3.2 | 3.3 |
| 10 | 360 | 7.8 | 240 | 4.4 | 120 | 3.1 | 3.0 | 3.15 |
| 11 | 300 | 8.8 | 240 | 4.4 | 120 | 3.3 | | 3.1 |
| 12 | 320 | 9.8 | 230 | 4.5 | 120 | 3.3 | | 2.9 |
| 13 | 300 | 10.9 | 230 | 4.6 | 120 | 3.2 | | 3.0 |
| 14 | 300 | 11.6 | 240 | 4.4 | 120 | 3.2 | 4.0 | 3.1 |
| 15 | 280 | 11.8 | 240 | 4.3 | 120 | 3.0 | 4.0 | 3.3 |
| 16 | 260 | 9.7 | 240 | 3.9 | 120 | 2.7 | 3.4 | 3.25 |
| 17 | 240 | 7.6 | 240 | 3.3 | 120 | 2.0 | 3.0 | 3.4 |
| 18 | 220 | 7.2 | | | | | 3.0 | 3.5 |
| 19 | 230 | 5.8 | | | | | 2.4 | 3.4 |
| 20 | 240 | 5.6 | | | | | 2.2 | 3.0 |
| 21 | 240 | 4.8 | | | | | 2.1 | 3.1 |
| 22 | 260 | 4.4 | | | | | 2.5 | 3.05 |
| 23 | 200 | 3.9 | | | | | 2.1 | 3.1 |

Time: 120.0°E.

Sweep: 1.1 Mc to 19.5 Mc in 15 minutes, manual operation.

Table 8

San Francisco, California (37.4°N, 122.2°W)

February 1955

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|------|------|-------|------|-------|-------|-------|-------|-----------|
| 00 | 270 | (3.0) | | | | | (3.2) | (3.0) |
| 01 | 250 | (3.0) | | | | | (3.0) | (3.1) |
| 02 | 250 | (3.0) | | | | | (2.7) | (3.1) |
| 03 | 260 | (3.0) | | | | | (2.0) | (3.1) |
| 04 | 250 | (3.0) | | | | | (2.5) | (3.1) |
| 05 | 270 | (2.9) | | | | | 2.2 | (3.0) |
| 06 | 260 | (2.9) | | | | | (2.9) | (3.0) |
| 07 | 250 | (4.2) | | | | | (2.8) | (3.2) |
| 08 | 250 | 5.7 | 240 | --- | (120) | (2.1) | (3.0) | 3.4 |
| 09 | 250 | 6.3 | 230 | (3.8) | 120 | (2.5) | 3.4 | 3.4 |
| 10 | 270 | 6.4 | 220 | (4.2) | (120) | (2.8) | 3.6 | 3.3 |
| 11 | 280 | 6.6 | 220 | (4.2) | (120) | (3.0) | 3.6 | 3.2 |
| 12 | 280 | 7.4 | 220 | (4.3) | (120) | (3.0) | 3.8 | 3.2 |
| 13 | 280 | 7.0 | 220 | (4.2) | (110) | (3.0) | 3.8 | 3.2 |
| 14 | 280 | 6.8 | 230 | (4.2) | 110 | (3.0) | 3.8 | 3.2 |
| 15 | 270 | 6.6 | 240 | (4.0) | 120 | (2.8) | 3.6 | 3.3 |
| 16 | 250 | 6.2 | 240 | (3.6) | 120 | (2.5) | (3.5) | 3.3 |
| 17 | 240 | 5.5 | --- | --- | 120 | (1.9) | (3.4) | 3.4 |
| 18 | 230 | (4.4) | | | | | (3.2) | 3.3 |
| 19 | 230 | (3.0) | | | | | (3.0) | (3.2) |
| 20 | 260 | (2.6) | | | | | (2.6) | (3.2) |
| 21 | 250 | (2.6) | | | | | (3.0) | 3.15 |
| 22 | 270 | (2.7) | | | | | (2.6) | (3.0) |
| 23 | 200 | (3.0) | | | | | (3.1) | (3.05) |

Time: 120.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 10

Okinawa I. (26.3°N, 127.0°E)

February 1955

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|------|------|-------|------|------|-----|-----|-----|-----------|
| 00 | 300 | 3.1 | | | | | | (2.9) |
| 01 | 230 | 3.1 | | | | | 1.8 | (3.0) |
| 02 | 280 | 3.1 | | | | | | 3.15 |
| 03 | 260 | 3.1 | | | | | | 3.2 |
| 04 | 250 | 2.5 | | | | | | 3.3 |
| 05 | 290 | 2.2 | | | | | | 3.0 |
| 06 | 280 | 2.3 | | | | | | 2.9 |
| 07 | 250 | 4.9 | 220 | --- | | | 2.8 | 3.4 |
| 08 | 260 | 6.2 | 240 | --- | 130 | 2.5 | | 3.5 |
| 09 | 280 | 7.2 | 240 | --- | 120 | 2.9 | | 3.3 |
| 10 | 280 | 7.6 | 240 | 4.4 | 130 | 3.1 | | 3.3 |
| 11 | 300 | 8.4 | 230 | 4.4 | 120 | 3.2 | | 3.15 |
| 12 | 300 | 8.5 | 220 | 4.6 | 120 | 3.3 | | 3.1 |
| 13 | 310 | 10.0 | 230 | 4.5 | 120 | 3.3 | | 3.1 |
| 14 | 300 | 10.8 | 240 | 4.4 | 120 | 3.1 | 3.3 | 3.2 |
| 15 | 280 | 10.5 | 240 | 4.2 | 130 | 3.0 | | 3.3 |
| 16 | 260 | 8.1 | 240 | --- | 130 | 2.6 | 3.6 | 3.4 |
| 17 | 240 | 6.9 | 250 | --- | 130 | 2.0 | 3.0 | 3.5 |
| 18 | 230 | 5.9 | | | | | 1.8 | (3.4) |
| 19 | 230 | 5.2 | | | | | 1.8 | 3.3 |
| 20 | 250 | 4.6 | | | | | 2.1 | 3.0 |
| 21 | 260 | 4.2 | | | | | | (3.0) |
| 22 | 290 | (3.7) | | | | | | 2.95 |
| 23 | 300 | 3.3 | | | | | | 2.9 |

Time: 127.5°E.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 12

Maui, Hawaii (20.8°N, 156.5°W)

February 1955

| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
|------|------|------|------|-------|-----|-----|-----|-----------|
| 00 | 300 | 3.0 | | | | | | 2.9 |
| 01 | 300 | 3.0 | | | | | | 2.9 |
| 02 | 280 | 3.0 | | | | | | 3.0 |
| 03 | 260 | 2.8 | | | | | | 3.3 |
| 04 | 240 | 2.5 | | | | | | 3.3 |
| 05 | 280 | 2.2 | | | | | | 3.1 |
| 06 | 300 | 1.8 | | | | | | 2.9 |
| 07 | 280 | 3.6 | | | | | | 3.1 |
| 08 | 270 | 5.7 | 240 | --- | 130 | 2.3 | 2.7 | 3.2 |
| 09 | 310 | 6.6 | 220 | (4.2) | 120 | 2.7 | 3.0 | 3.0 |
| 10 | 330 | 7.9 | 220 | 4.5 | 120 | 3.0 | 4.2 | 2.85 |
| 11 | 350 | 9.0 | 220 | 4.6 | 120 | 3.2 | 4.0 | 2.8 |
| 12 | 340 | 10.0 | 230 | 4.6 | 120 | 3.3 | 4.0 | 2.9 |
| 13 | 320 | 10.4 | 230 | 4.6 | 120 | 3.3 | 4.0 | 2.9 |
| 14 | 320 | 10.8 | 230 | 4.5 | 120 | 3.2 | 3.8 | 2.9 |
| 15 | 300 | 10.5 | 240 | 4.4 | 120 | 3.1 | 3.8 | 3.0 |
| 16 | 280 | 9.8 | 250 | 4.1 | 120 | 2.8 | 3.6 | 3.1 |
| 17 | 260 | 7.8 | 250 | --- | 130 | 2.3 | 3.5 | 3.3 |
| 18 | 240 | 6.0 | | | --- | --- | 2.9 | 3.5 |
| 19 | 240 | 3.8 | | | | | 2.9 | 3.35 |
| 20 | 260 | 3.2 | | | | | 2.5 | 3.0 |
| 21 | 310 | 3.3 | | | | | 2.0 | 2.75 |
| 22 | 290 | 3.4 | | | | | 2.6 | 3.0 |
| 23 | 290 | 3.3 | | | | | | 2.9 |

Time: 150.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 13

| Puerto Rico, W. I. (18.5°N, 67.2°W) February 1955 | | | | | | | | |
|---|-------|-------|------|------|-----|-------|-----|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 280 | (3.5) | | | | | | (3.0) |
| 01 | 270 | (3.6) | | | | | | (3.0) |
| 02 | 260 | 3.9 | | | | | | 3.1 |
| 03 | 240 | 4.0 | | | | | | 3.3 |
| 04 | 230 | (4.0) | | | | | | 3.4 |
| 05 | 240 | 3.7 | | | | | | 3.2 |
| 06 | 230 | 3.2 | | | | | | 3.4 |
| 07 | 220 | 3.8 | | | | | | 3.5 |
| 08 | 230 | 5.2 | 210 | --- | 110 | (2.1) | | 3.6 |
| 09 | 260 | 5.8 | 240 | --- | 110 | (2.7) | 3.1 | 3.4 |
| 10 | 280 | 6.6 | 240 | 4.4 | 110 | 3.0 | | 3.25 |
| 11 | 280 | 7.4 | 230 | 4.5 | 110 | 3.2 | | 3.3 |
| 12 | 280 | 7.6 | 230 | 4.5 | 110 | 3.3 | | 3.3 |
| 13 | 280 | 8.0 | 230 | 4.5 | 110 | 3.4 | | 3.2 |
| 14 | 280 | 8.0 | 240 | 4.5 | 110 | 3.3 | 3.4 | 3.25 |
| 15 | 280 | 8.0 | 220 | 4.3 | 110 | 3.1 | 2.6 | 3.2 |
| 16 | 270 | 7.5 | 230 | 4.1 | 110 | 2.8 | 4.4 | 3.2 |
| 17 | 250 | 7.6 | 230 | --- | 110 | 2.4 | 4.0 | 3.4 |
| 18 | 220 | 7.6 | 230 | --- | | | 3.0 | 3.5 |
| 19 | 200 | 5.3 | | | | | 2.4 | 3.6 |
| 20 | 220 | 3.6 | | | | | 2.4 | 3.4 |
| 21 | (270) | 3.0 | | | | | | 3.0 |
| 22 | 290 | 3.3 | | | | | | 2.9 |
| 23 | 280 | 3.5 | | | | | | 3.0 |

Time: 60.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 15

| Panama Canal Zone (9.4°N, 79.9°W) February 1955 | | | | | | | | |
|---|------|------|------|-------|-----|-------|-----|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 270 | 3.2 | | | | | 2.2 | 3.1 |
| 01 | 240 | 3.3 | | | | | 1.9 | 3.4 |
| 02 | 230 | 3.4 | | | | | 1.8 | 3.5 |
| 03 | 220 | 3.1 | | | | | 1.9 | 3.55 |
| 04 | 220 | 2.4 | | | | | 2.6 | 3.5 |
| 05 | 270 | 2.2 | | | | | 2.2 | 3.0 |
| 06 | 280 | 2.2 | | | | | 2.0 | 3.0 |
| 07 | 240 | 4.6 | | | | | 3.2 | 3.5 |
| 08 | 260 | 5.8 | 240 | --- | 110 | 2.5 | 3.6 | 3.4 |
| 09 | 300 | 6.5 | 230 | 4.4 | 110 | 2.9 | 4.3 | 3.2 |
| 10 | 310 | 7.6 | 220 | 4.5 | 110 | 3.2 | 4.5 | 3.1 |
| 11 | 320 | 8.6 | 220 | 4.6 | 110 | 3.3 | 4.8 | 3.1 |
| 12 | 320 | 8.8 | 230 | 4.6 | 110 | 3.4 | 4.7 | 3.0 |
| 13 | 320 | 9.6 | 220 | 4.6 | 110 | 3.4 | 4.7 | 3.0 |
| 14 | 310 | 10.4 | 220 | 4.6 | 110 | 3.4 | 4.6 | 3.0 |
| 15 | 300 | 10.7 | 220 | 4.5 | 110 | (3.2) | 4.6 | 3.1 |
| 16 | 270 | 11.2 | 220 | 4.2 | 110 | 3.0 | 4.7 | 3.3 |
| 17 | 240 | 10.6 | 230 | (3.9) | 120 | 2.5 | 4.4 | 3.5 |
| 18 | 220 | 8.0 | --- | --- | --- | --- | 3.9 | 3.7 |
| 19 | 210 | 4.4 | | | | | 3.1 | 3.5 |
| 20 | 230 | 3.4 | | | | | 2.8 | 3.3 |
| 21 | 260 | 2.8 | | | | | 3.0 | 3.0 |
| 22 | 300 | 2.8 | | | | | 2.5 | 3.0 |
| 23 | 300 | 3.0 | | | | | 1.9 | 2.95 |

Time: 75.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 17

| Resolute Bay, Canada (74.7°N, 94.9°W) January 1955 | | | | | | | | |
|--|------|------|------|------|-----|-----|-----|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 270 | 2.3 | | | | | | 3.2 |
| 01 | 260 | 2.2 | | | | | | 3.2 |
| 02 | 260 | 2.2 | | | | | | 3.2 |
| 03 | 260 | 2.2 | | | | | 3.0 | 3.2 |
| 04 | 260 | 2.1 | | | | | 3.2 | 3.3 |
| 05 | 270 | 2.2 | | | | | 4.6 | 3.3 |
| 06 | 270 | 2.4 | | | | | 4.2 | 3.25 |
| 07 | 270 | 2.8 | | | | | 4.0 | 3.2 |
| 08 | 250 | 2.8 | | | | | 3.4 | 3.2 |
| 09 | 250 | 2.8 | | | | | 2.5 | 3.2 |
| 10 | 240 | 3.2 | | | | | 2.6 | 3.2 |
| 11 | 240 | 3.3 | | | | | 2.5 | 3.3 |
| 12 | 240 | 3.6 | | | | | | 3.25 |
| 13 | 240 | 3.8 | | | | | | 3.3 |
| 14 | 240 | 3.6 | | | | | | 3.3 |
| 15 | 240 | 3.3 | | | | | | 3.3 |
| 16 | 240 | 3.4 | | | | | | 3.2 |
| 17 | 250 | 3.4 | | | | | | 3.2 |
| 18 | 250 | 3.1 | | | | | | 3.2 |
| 19 | 250 | 3.0 | | | | | | 3.2 |
| 20 | 250 | 2.9 | | | | | | 3.2 |
| 21 | 260 | 2.8 | | | | | | 3.2 |
| 22 | 250 | 2.5 | | | | | 3.6 | 3.3 |
| 23 | 250 | 2.3 | | | | | | 3.2 |

Time: 90.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 14

| Guam I. (13.6°N, 144.9°E) February 1955 | | | | | | | | |
|---|------|------|------|------|-----|-----|-----|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 220 | 5.6 | | | | | 2.2 | 3.3 |
| 01 | 230 | 5.1 | | | | | | 3.4 |
| 02 | 230 | 4.8 | | | | | 1.4 | 3.5 |
| 03 | 220 | 4.4 | | | | | | 3.6 |
| 04 | 220 | 3.0 | | | | | 1.6 | 3.5 |
| 05 | 240 | 2.5 | | | | | 1.6 | 3.4 |
| 06 | 240 | 1.8 | | | | | 1.8 | 3.4 |
| 07 | 240 | 4.6 | | | 130 | 1.6 | 2.3 | 3.5 |
| 08 | 260 | 6.6 | 220 | --- | 110 | 2.4 | 3.0 | 3.4 |
| 09 | 290 | 7.8 | 210 | 4.2 | 110 | 2.9 | 3.4 | 3.1 |
| 10 | 320 | 8.4 | 200 | 4.4 | 110 | 3.1 | 3.2 | 2.8 |
| 11 | 340 | 8.2 | 190 | 4.5 | 110 | 3.3 | 3.6 | 2.6 |
| 12 | 350 | 7.9 | 190 | 4.5 | 110 | 3.3 | 2.7 | 2.6 |
| 13 | 340 | 8.1 | 190 | 4.5 | 110 | 3.3 | | 2.6 |
| 14 | 330 | 8.6 | 200 | 4.5 | 110 | 3.3 | | 2.8 |
| 15 | 320 | 9.0 | 200 | 4.4 | 110 | 3.1 | | 2.9 |
| 16 | 300 | 9.5 | 210 | 4.3 | 110 | 2.9 | | 3.1 |
| 17 | 270 | 9.9 | 230 | --- | 110 | 2.4 | 3.5 | 3.3 |
| 18 | 250 | 9.4 | 240 | --- | --- | --- | 3.0 | 3.3 |
| 19 | 240 | 8.9 | | | | | 2.2 | 3.3 |
| 20 | 240 | 8.5 | | | | | | 3.2 |
| 21 | 230 | 7.6 | | | | | 3.1 | 3.3 |
| 22 | 230 | 6.8 | | | | | 2.0 | 3.3 |
| 23 | 230 | 5.9 | | | | | 2.4 | 3.3 |

Time: 150.0°E.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 16

| Leopoldville, Belgian Congo (4.3°S, 15.3°E) February 1955 | | | | | | | | |
|---|------|------|------|-------|-----|-----|-----|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M2000)F2 |
| 00 | 220 | 3.6 | | | | | | 2.35 |
| 01 | 270 | 3.0 | | | | | | 2.3 |
| 02 | 260 | 3.0 | | | | | 1.6 | 2.35 |
| 03 | 270 | 2.6 | | | | | 2.2 | 2.4 |
| 04 | 290 | 2.6 | | | | | 2.4 | 2.5 |
| 05 | 250 | 3.4 | | | | | 2.8 | 2.6 |
| 06 | 260 | 6.0 | 235 | --- | 115 | 2.0 | 3.0 | 2.7 |
| 07 | 275 | 6.7 | 220 | (4.1) | 110 | 2.7 | 3.0 | 2.6 |
| 08 | 310 | 7.1 | 220 | (4.3) | 110 | 3.1 | | 2.35 |
| 09 | 325 | 7.9 | 210 | 4.5 | 105 | 3.4 | | 2.2 |
| 10 | 340 | 8.6 | 200 | 4.5 | 110 | 3.5 | | 2.2 |
| 11 | 340 | 9.3 | 200 | 4.6 | 105 | 3.6 | | 2.2 |
| 12 | 345 | 10.2 | 200 | 4.5 | 110 | 3.6 | | 2.2 |
| 13 | 345 | 10.6 | 200 | 4.4 | 110 | 3.4 | | 2.15 |
| 14 | 340 | 10.6 | 200 | 4.4 | 110 | 3.2 | | 2.15 |
| 15 | 330 | 10.2 | 220 | 4.2 | 110 | 3.0 | 3.0 | 2.1 |
| 16 | 315 | 10.0 | 235 | --- | 115 | 2.4 | 3.0 | 2.2 |
| 17 | 300 | 10.0 | 250 | --- | --- | --- | 2.6 | 2.2 |
| 18 | 250 | 9.8 | | | | | 2.3 | 2.3 |
| 19 | 260 | 9.0 | | | | | | 2.3 |
| 20 | 240 | 9.4 | | | | | | 2.4 |
| 21 | 225 | 9.4 | | | | | | 2.6 |
| 22 | 210 | 8.3 | | | | | | 2.8 |
| 23 | 200 | 5.6 | | | | | | 2.7 |

Time: 0.0°.

Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 18

| Kiruna, Sweden (67.8°N, 20.3°E) January 1955 | | | | | | | | |
|--|-------|-------|------|------|-----|-----|-----|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | (310) | 2.1 | | | | | 2.8 | (3.3) |
| 01 | (310) | 2.2 | | | | | 2.2 | (3.35) |
| 02 | 300 | 2.4 | | | | | 2.0 | 3.1 |
| 03 | 300 | 2.3 | | | | | | 3.15 |
| 04 | 300 | 2.3 | | | | | | 3.3 |
| 05 | 260 | 2.7 | | | | | | 3.2 |
| 06 | 290 | 2.2 | | | | | | 3.3 |
| 07 | (295) | 2.0 | | | | | | (3.3) |
| 08 | 270 | 2.1 | | | | | | 3.2 |
| 09 | 230 | 3.0 | | | | | | 3.4 |
| 10 | 220 | 3.9 | | | --- | --- | | 3.5 |
| 11 | 220 | 4.6 | | | --- | --- | | 3.6 |
| 12 | 220 | 4.8 | | | --- | --- | | 3.6 |
| 13 | 220 | 4.8 | | | --- | --- | | 3.6 |
| 14 | 210 | 4.1 | | | --- | --- | | 3.6 |
| 15 | 210 | 3.4 | | | | | | 3.6 |
| 16 | 230 | 2.8 | | | | | | 3.7 |
| 17 | 240 | 2.3 | | | | | | 3.6 |
| 18 | 260 | 2.2 | | | | | | (3.3) |
| 19 | --- | (2.4) | | | | | 2.0 | --- |
| 20 | --- | (2.9) | | | | | 2.4 | --- |
| 21 | 260 | 3.0 | | | | | 2.8 | 3.3 |
| 22 | 300 | 2.9 | | | | | 2.6 | 3.1 |
| 23 | (300) | 2.6 | | | | | 3.2 | (3.2) |

Time: 15.0°E.

Sweep: 0.8 Mc to 15.0 Mc in 30 seconds.

Table 19

| Lulea, Sweden (65.6°N, 22.1°E) | | | | | | | | January 1955 |
|--------------------------------|-------------------|-------|-------------------|------|-----|-----|-----|--------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | (270) | --- | | | | | | |
| 01 | | | | | | | | |
| 02 | (300) | --- | | | | | 1.8 | |
| 03 | | | | | | | | |
| 04 | 300 | (2.2) | | | | | | |
| 05 | | | | | | | | |
| 06 | (310) | --- | | | | | | |
| 07 | | | | | | | | |
| 08 | 265 | 2.2 | | | | | | |
| 09 | | | | | | | | |
| 10 | 210 | 4.1 | | | --- | 1.7 | 2.0 | |
| 11 | | | | | | | | |
| 12 | 210 | 5.2 | | | --- | 1.7 | 1.8 | |
| 13 | | | | | | | | |
| 14 | 200 | 4.1 | | | --- | 1.6 | | |
| 15 | | | | | | | | |
| 16 | 225 | 3.1 | | | | | | |
| 17 | | | | | | | | |
| 18 | (275) | (2.4) | | | | | | |
| 19 | | | | | | | | |
| 20 | --- | --- | | | | | | |
| 21 | | | | | | | | |
| 22 | (270) | --- | | | | | | |
| 23 | | | | | | | | |

Time: 15.0°E.

Sweep: 1.5 Mc to 10.0 Mc in 6 minutes, automatic operation.

Table 21

| Baker Lake, Canada (64.3°N, 96.0°W) | | | | | | | | January 1955 |
|-------------------------------------|-------------------|------|-------------------|------|-----|-----|-----|--------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 280 | 2.0 | | | 130 | 1.2 | 6.0 | 3.1 |
| 01 | 270 | 2.2 | | | 130 | 1.0 | 5.0 | 3.0 |
| 02 | 270 | 2.3 | | | 130 | 1.0 | 5.5 | 3.0 |
| 03 | 270 | 2.2 | | | 130 | 1.0 | 5.0 | 3.1 |
| 04 | 260 | 2.3 | | | 140 | 1.4 | 5.0 | (3.15) |
| 05 | 270 | 2.5 | | | 130 | 1.6 | 6.0 | 3.05 |
| 06 | 270 | 2.6 | | | 130 | 1.8 | 5.2 | (3.1) |
| 07 | 280 | 2.8 | | | 120 | 1.9 | 5.0 | (3.4) |
| 08 | 270 | 3.2 | | | 120 | 2.0 | 5.0 | --- |
| 09 | 270 | 3.6 | | | 120 | 2.5 | 5.0 | 3.2 |
| 10 | 200 | 4.2 | | | 110 | 2.6 | 4.6 | 3.2 |
| 11 | 260 | 4.3 | | | 120 | 2.7 | 5.6 | 3.3 |
| 12 | 260 | 4.8 | --- | --- | 120 | 2.6 | 5.0 | 3.3 |
| 13 | 250 | 5.5 | --- | --- | 120 | 2.4 | 5.0 | 3.2 |
| 14 | 250 | 5.6 | --- | --- | 120 | 2.2 | 3.8 | 3.25 |
| 15 | 240 | 5.0 | --- | --- | 120 | 2.1 | 5.0 | 3.3 |
| 16 | 260 | 4.0 | | | 120 | 2.0 | 5.4 | 3.2 |
| 17 | 260 | 4.0 | | | 130 | 2.0 | 5.0 | 3.2 |
| 18 | 270 | 3.3 | | | 120 | 2.0 | 4.5 | 3.1 |
| 19 | 250 | 3.6 | | | 130 | 1.8 | 5.0 | (3.15) |
| 20 | 260 | 3.0 | | | 130 | 1.6 | 6.2 | (3.2) |
| 21 | 260 | 2.0 | | | 120 | 1.0 | 6.2 | 3.2 |
| 22 | 250 | 2.7 | | | 130 | 1.4 | 7.0 | 3.05 |
| 23 | 260 | 2.4 | | | --- | 1.3 | 7.0 | 3.1 |

Time: 90.0°W.

Sweep: 0.6 Mc to 10.0 Mc in 16 seconds.

Table 23

| Anchorage, Alaska (61.2°N, 149.9°W) | | | | | | | | January 1955 |
|-------------------------------------|-------------------|-------|-------------------|------|-----|-----|-----|--------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | --- | E | | | | | | (3.1) |
| 01 | --- | E | | | | | | --- |
| 02 | --- | E | | | | | | --- |
| 03 | --- | E | | | | | | --- |
| 04 | --- | E | | | | | 1.2 | --- |
| 05 | --- | E | | | | | | --- |
| 06 | --- | E | | | | | | (3.0) |
| 07 | --- | 1.1 | | | | | | (3.0) |
| 08 | 270 | 1.9 | | | --- | --- | | 3.1 |
| 09 | 240 | 3.5 | | | --- | --- | | 3.4 |
| 10 | 230 | 4.5 | --- | --- | --- | --- | | 3.5 |
| 11 | 230 | 5.0 | --- | --- | --- | --- | | 3.5 |
| 12 | 240 | 5.2 | --- | --- | --- | --- | | 3.5 |
| 13 | 230 | 5.4 | --- | --- | | | | 3.55 |
| 14 | 230 | 5.1 | --- | --- | | | | 3.5 |
| 15 | 230 | 4.8 | | | | | | 3.5 |
| 16 | 220 | 4.0 | | | | | | 3.4 |
| 17 | 230 | 3.0 | | | | | | 3.4 |
| 18 | 240 | 2.0 | | | | | | 3.4 |
| 19 | --- | E | | | | | | (3.45) |
| 20 | --- | E | | | | | | --- |
| 21 | --- | E | | | | | | --- |
| 22 | --- | E | | | | | | --- |
| 23 | (310) | (1.2) | | | | | | (3.0) |

Time: 150.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 20

| Fairbanks, Alaska (64.9°N, 147.0°W) | | | | | | | | January 1955 |
|-------------------------------------|-------------------|-------|-------------------|------|-------|-----|-------|--------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 290 | (2.4) | | | | | 4.5 | (3.1) |
| 01 | 300 | (2.3) | | | | | 4.9 | (3.1) |
| 02 | 330 | (2.3) | | | | | 5.2 | (3.05) |
| 03 | 320 | (2.1) | | | | | 4.9 | (2.9) |
| 04 | (310) | (2.3) | | | | | 5.4 | (2.95) |
| 05 | (350) | (2.1) | | | | | 5.2 | (2.9) |
| 06 | 310 | (1.8) | | | | | 5.5 | (2.9) |
| 07 | 290 | (2.0) | | | | | 4.9 | (3.0) |
| 08 | 290 | (2.0) | | | | | 4.7 | (3.0) |
| 09 | 250 | 3.0 | | | | | 2.2 | 3.4 |
| 10 | 240 | 4.0 | --- | --- | --- | --- | (1.6) | 3.5 |
| 11 | 230 | 4.6 | --- | --- | --- | E | | 3.45 |
| 12 | 230 | 5.0 | --- | --- | (130) | --- | | 3.5 |
| 13 | 220 | 5.0 | --- | --- | --- | --- | | 3.5 |
| 14 | 220 | 4.7 | | | --- | --- | | 3.5 |
| 15 | 220 | 4.4 | | | | | | 3.5 |
| 16 | 230 | 3.6 | | | | | | 3.45 |
| 17 | 240 | 2.8 | | | | | | 3.4 |
| 18 | 240 | (2.0) | | | | | 4.4 | (3.5) |
| 19 | --- | E | | | | | 4.1 | --- |
| 20 | --- | E | | | | | 6.0 | --- |
| 21 | (370) | --- | | | | | 4.4 | --- |
| 22 | (370) | (2.1) | | | | | 4.0 | --- |
| 23 | 300 | (2.4) | | | | | 4.4 | (3.1) |

Time: 150.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 22

| Reykjavik, Iceland (64.1°N, 21.0°W) | | | | | | | | January 1955 |
|-------------------------------------|-------------------|-------|-------------------|------|-----|-----|-------|--------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | | | | | | | 4.5 | |
| 01 | | | | | | | 4.5 | |
| 02 | --- | --- | | | | | 4.3 | --- |
| 03 | (300) | (2.6) | | | | | 3.5 | (3.0) |
| 04 | (300) | (2.6) | | | | | 2.0 | (3.1) |
| 05 | 200 | (2.5) | | | | | (2.6) | (3.1) |
| 06 | (280) | (2.2) | | | | | | (3.2) |
| 07 | (260) | --- | | | | | --- | |
| 08 | --- | E | | | | | --- | |
| 09 | 240 | 2.5 | | | --- | --- | | 3.3 |
| 10 | 230 | 3.8 | | | --- | --- | | 3.4 |
| 11 | 220 | 4.6 | | | --- | --- | | 3.5 |
| 12 | 230 | 5.2 | --- | --- | --- | --- | | 3.5 |
| 13 | 230 | 5.2 | --- | --- | --- | --- | | 3.5 |
| 14 | 220 | 4.9 | | | --- | --- | | 3.5 |
| 15 | 220 | 4.7 | | | --- | --- | | 3.5 |
| 16 | 230 | 4.0 | | | | | | 3.4 |
| 17 | 240 | (3.2) | | | | | 2.8 | 3.25 |
| 18 | (240) | (2.8) | | | | | 2.0 | 3.2 |
| 19 | --- | --- | | | | | 3.6 | --- |
| 20 | --- | --- | | | | | 3.7 | --- |
| 21 | --- | --- | | | | | 3.7 | --- |
| 22 | --- | (2.0) | | | | | 3.8 | --- |
| 23 | | | | | | | 3.7 | |

Time: 15.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 16.2 seconds.

Table 24

| Churchill, Canada (58.8°N, 94.2°W) | | | | | | | | January 1955 |
|------------------------------------|-------------------|-------|-------------------|------|-----|-------|-----|--------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | (260) | (2.8) | | | | | 6.0 | |
| 01 | (200) | (2.0) | | | | | 7.5 | |
| 02 | --- | --- | | | | | 5.6 | |
| 03 | (300) | (3.0) | | | --- | --- | 5.0 | |
| 04 | --- | (2.0) | | | --- | --- | 5.0 | --- |
| 05 | (360) | (3.0) | | | --- | --- | 4.7 | --- |
| 06 | --- | (3.3) | | | --- | --- | 4.8 | --- |
| 07 | (300) | (2.5) | | | --- | --- | 4.9 | |
| 08 | 290 | 2.8 | | | --- | --- | 4.6 | (3.3) |
| 09 | 250 | 3.7 | | | 120 | 1.8 | 4.8 | 3.4 |
| 10 | 240 | 4.4 | --- | --- | 120 | 1.8 | 4.9 | 3.4 |
| 11 | 250 | 5.0 | 230 | --- | 120 | 2.0 | 5.0 | 3.35 |
| 12 | 250 | 5.5 | 230 | 3.2 | 120 | 2.3 | 5.0 | 3.4 |
| 13 | 250 | 5.8 | 230 | 3.2 | 120 | 2.3 | 5.0 | 3.3 |
| 14 | 250 | 5.0 | --- | --- | 130 | 2.2 | 5.0 | 3.3 |
| 15 | 240 | 5.6 | --- | --- | 130 | 1.9 | 4.9 | 3.4 |
| 16 | 240 | 5.5 | | | 130 | 1.9 | 4.5 | 3.4 |
| 17 | 250 | 4.4 | | | 120 | (1.8) | 4.2 | 3.3 |
| 18 | 200 | 3.5 | | | 130 | (1.6) | 4.5 | (3.3) |
| 19 | 280 | 3.1 | | | --- | --- | 4.6 | --- |
| 20 | 320 | 2.9 | | | --- | --- | 4.7 | --- |
| 21 | (290) | 3.2 | | | --- | --- | 5.0 | |
| 22 | (310) | (3.0) | | | --- | --- | 5.0 | |
| 23 | (330) | (2.8) | | | | | 6.0 | --- |

Time: 90.0°W.

Sweep: 0.6 Mc to 10.0 Mc in 16 seconds.

Table 25

| De Bilt, Holland (52.1°N, 5.2°E) | | | | | | | | | January 1955 |
|----------------------------------|------|-------|------|------|-----|-----|-----|-----------|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 250 | 2.8 | | | | | | 3.0 | |
| 01 | 250 | 2.8 | | | | | | 3.0 | |
| 02 | 260 | (2.9) | | | | | | 3.0 | |
| 03 | 260 | (2.6) | | | | | | 3.0 | |
| 04 | 250 | (2.4) | | | | | | 3.0 | |
| 05 | 240 | (2.0) | | | | | | 3.1 | |
| 06 | 230 | (2.0) | | | | | | 3.2 | |
| 07 | 230 | 2.5 | | | | | | 3.2 | |
| 08 | 200 | 4.6 | | | | | | 3.5 | |
| 09 | 205 | 5.4 | --- | --- | 120 | 2.0 | 1.8 | 3.6 | |
| 10 | 210 | 5.8 | 210 | 3.2 | 120 | 2.3 | | 3.6 | |
| 11 | 220 | 6.1 | 210 | 3.4 | 115 | 2.4 | | 3.6 | |
| 12 | 220 | 5.8 | 210 | 3.4 | 115 | 2.5 | | 3.6 | |
| 13 | 220 | 5.8 | 220 | 3.4 | 115 | 2.4 | | 3.6 | |
| 14 | 220 | 5.4 | 205 | 3.2 | 115 | 2.2 | | 3.6 | |
| 15 | 210 | 5.3 | | | 120 | 1.9 | | 3.6 | |
| 16 | 210 | 4.8 | | | --- | E | | 3.5 | |
| 17 | 220 | 3.9 | | | | | | 3.4 | |
| 18 | 230 | 3.1 | | | | | | 3.3 | |
| 19 | 230 | 2.6 | | | | | | 3.1 | |
| 20 | 240 | 2.8 | | | | | | 3.0 | |
| 21 | 240 | 2.6 | | | | | | 3.0 | |
| 22 | 240 | 2.8 | | | | | | 3.0 | |
| 23 | 240 | (2.8) | | | | | | 3.0 | |

Time: 0.0°.
Sweep: 1.4 Mc to 11.2 Mc in 6 minutes, automatic operation.

Table 26

| Lindau/Harz, Germany (51.6°N, 10.1°E) | | | | | | | | | January 1955 |
|---------------------------------------|------|------|------|------|-----|-----|-----|-----------|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 255 | 3.0 | | | | | | 2.6 | 3.1 |
| 01 | 250 | 3.0 | | | | | | 2.4 | 3.1 |
| 02 | 250 | 3.0 | | | | | | 2.6 | 3.1 |
| 03 | 255 | 3.0 | | | | | | 2.5 | 3.1 |
| 04 | 250 | 2.7 | | | | | | 3.0 | 3.1 |
| 05 | 250 | 2.4 | | | | | | 2.4 | 3.2 |
| 06 | 260 | 2.0 | | | | | | 2.5 | 3.4 |
| 07 | 260 | 2.0 | | | | | | 2.5 | 3.3 |
| 08 | 215 | 3.5 | | | | | | 2.6 | 3.5 |
| 09 | 205 | 5.0 | | | | | | 3.1 | 3.7 |
| 10 | 210 | 5.5 | | | 115 | 2.1 | E | 3.3 | 3.6 |
| 11 | 215 | 5.8 | | | 110 | 2.4 | | 3.4 | 3.6 |
| 12 | 220 | 6.2 | | | 115 | 2.4 | | 3.5 | 3.6 |
| 13 | 220 | 6.0 | | | 115 | 2.4 | | 3.6 | 3.6 |
| 14 | 215 | 5.6 | | | 110 | 2.3 | | 3.4 | 3.6 |
| 15 | 215 | 5.1 | | | 120 | 2.0 | | 3.4 | 3.6 |
| 16 | 210 | 5.0 | | | --- | E | | 3.3 | 3.5 |
| 17 | 210 | 4.4 | | | | | | 3.2 | 3.4 |
| 18 | 220 | 3.4 | | | | | | 2.5 | 3.4 |
| 19 | 230 | 2.9 | | | | | | 2.6 | 3.3 |
| 20 | 260 | 2.7 | | | | | | 2.4 | 3.2 |
| 21 | 260 | 2.6 | | | | | | 2.4 | 3.1 |
| 22 | 250 | 2.7 | | | | | | 2.4 | 3.15 |
| 23 | 260 | 3.0 | | | | | | 2.4 | 3.1 |

Time: 15.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 8 minutes.

Table 27

| Winnipeg, Canada (49.9°N, 97.4°W) | | | | | | | | | January 1955 |
|-----------------------------------|-------|-------|------|------|-----|-----|-----|-----------|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 310 | 2.0 | | | | | | --- | |
| 01 | 340 | (2.0) | | | | | | (3.1) | |
| 02 | 320 | 2.0 | | | | | | --- | |
| 03 | (360) | 2.0 | | | | | 3.0 | --- | |
| 04 | (330) | (2.0) | | | | | 4.4 | --- | |
| 05 | (320) | 2.1 | | | | | 3.8 | --- | |
| 06 | (320) | (2.0) | | | | | 3.2 | --- | |
| 07 | --- | 1.8 | | | | | 3.0 | --- | |
| 08 | 260 | 2.6 | | | | | | 3.2 | |
| 09 | 240 | 4.2 | 230 | --- | 130 | 1.9 | | 3.4 | |
| 10 | 240 | 5.1 | 230 | 3.2 | 120 | 2.2 | | 3.5 | |
| 11 | 250 | 5.5 | 220 | 3.5 | 120 | 2.4 | | 3.4 | |
| 12 | 260 | 6.0 | 220 | 3.6 | 120 | 2.6 | | 3.4 | |
| 13 | 260 | 6.0 | 220 | 3.7 | 120 | 2.6 | | 3.4 | |
| 14 | 250 | 6.0 | 230 | 3.5 | 120 | 2.5 | | 3.4 | |
| 15 | 240 | 5.8 | 230 | 3.1 | 120 | 2.3 | | 3.4 | |
| 16 | 230 | 5.7 | 230 | --- | 130 | 2.0 | | 3.45 | |
| 17 | 220 | 5.0 | | | --- | --- | | 3.4 | |
| 18 | 230 | 4.0 | | | | | | 3.3 | |
| 19 | 240 | 3.0 | | | | | | 3.25 | |
| 20 | 270 | 2.1 | | | | | | 3.1 | |
| 21 | 290 | 2.0 | | | | | | (3.1) | |
| 22 | (310) | 1.8 | | | | | | --- | |
| 23 | (300) | 1.8 | | | | | | --- | |

Time: 90.0°W.
Sweep: 1.0 Mc to 10.0 Mc in 16 seconds.

Table 28

| Schwarzenburg, Switzerland (46.8°N, 7.3°E) | | | | | | | | | January 1955 |
|--|------|------|------|------|-----|-----|-----|-----------|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 260 | 3.2 | | | | | | 3.4 | |
| 01 | 260 | 3.2 | | | | | | 3.4 | |
| 02 | 270 | 3.1 | | | | | | 3.3 | |
| 03 | 200 | 3.0 | | | | | | 3.3 | |
| 04 | 260 | 2.9 | | | | | | 3.4 | |
| 05 | 240 | 2.5 | | | | | | 3.5 | |
| 06 | 230 | 2.4 | | | | | | 3.6 | |
| 07 | 225 | 2.4 | | | --- | --- | | 3.7 | |
| 08 | 200 | 3.7 | | | --- | --- | | 3.9 | |
| 09 | 200 | 5.4 | | | 100 | 2.0 | | 3.9 | |
| 10 | 200 | 5.8 | | | 100 | 2.3 | | 4.0 | |
| 11 | 200 | 6.0 | | | 100 | 2.5 | | 4.0 | |
| 12 | 200 | 6.1 | | | 100 | 2.6 | | 4.0 | |
| 13 | 200 | 5.8 | | | 100 | 2.6 | | 3.9 | |
| 14 | 200 | 5.6 | | | 100 | 2.5 | | 3.9 | |
| 15 | 200 | 5.3 | | | 100 | 2.3 | | 3.9 | |
| 16 | 200 | 5.2 | | | 100 | 2.0 | | 4.0 | |
| 17 | 200 | 4.4 | | | --- | --- | | 3.9 | |
| 18 | 200 | 3.4 | | | | | | 3.7 | |
| 19 | 210 | 3.4 | | | | | | 3.7 | |
| 20 | 225 | 3.2 | | | | | | 3.65 | |
| 21 | 240 | 3.0 | | | | | | 3.6 | |
| 22 | 260 | 3.0 | | | | | | 3.3 | |
| 23 | 250 | 3.0 | | | | | | 3.4 | |

Time: 15.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 30 seconds.

Table 29

| Ottawa, Canada (45.4°N, 75.9°W) | | | | | | | | | January 1955 |
|---------------------------------|------|------|------|------|-----|-----|-----|-----------|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 310 | 2.0 | | | | | | 3.05 | |
| 01 | 330 | 1.9 | | | | | | (3.0) | |
| 02 | 320 | 1.0 | | | | | | --- | |
| 03 | 320 | 1.8 | | | | | | (3.0) | |
| 04 | 330 | 1.8 | | | | | | (3.0) | |
| 05 | 320 | 1.8 | | | | | | (3.2) | |
| 06 | 300 | 2.0 | | | | | | 3.2 | |
| 07 | 270 | 2.2 | | | | | | 3.1 | |
| 08 | 230 | 4.0 | | | | | | 3.6 | |
| 09 | 230 | 5.0 | 230 | --- | 140 | 1.8 | | 3.5 | |
| 10 | 240 | 5.7 | 220 | 3.5 | 120 | 2.5 | | 3.6 | |
| 11 | 250 | 5.9 | 210 | 3.8 | 110 | 2.8 | | 3.5 | |
| 12 | 260 | 6.0 | 210 | 3.9 | 110 | 2.9 | | 3.5 | |
| 13 | 250 | 6.2 | 220 | 3.9 | 110 | 2.8 | | 3.4 | |
| 14 | 250 | 6.0 | 220 | 3.7 | 110 | 2.6 | | 3.5 | |
| 15 | 240 | 5.8 | 220 | 3.2 | 110 | 2.2 | | 3.5 | |
| 16 | 230 | 5.6 | 230 | --- | 130 | 2.0 | | 3.5 | |
| 17 | 230 | 5.0 | | | | | | 3.4 | |
| 18 | 230 | 4.1 | | | | | | 3.3 | |
| 19 | 240 | 3.0 | | | | | | 3.2 | |
| 20 | 270 | 2.4 | | | | | | 3.1 | |
| 21 | 300 | 2.2 | | | | | | 3.0 | |
| 22 | 300 | 2.1 | | | | | | 3.0 | |
| 23 | 300 | 2.0 | | | | | | 3.0 | |

Time: 75.0°W.
Sweep: 1.0 Mc to 10.0 Mc in 15 seconds.

Table 30

| Okinawa I. (26.3°N, 127.8°E) | | | | | | | | | January 1955 |
|------------------------------|------|-------|------|------|-----|-----|-----|-----------|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 280 | 2.9 | | | | | | 3.0 | |
| 01 | 280 | 2.9 | | | | | | 3.1 | |
| 02 | 260 | 3.0 | | | | | | 3.2 | |
| 03 | 250 | (2.8) | | | | | 1.8 | (3.3) | |
| 04 | 260 | (2.3) | | | | | 2.0 | 3.1 | |
| 05 | 320 | (2.3) | | | | | 2.0 | (2.9) | |
| 06 | 290 | (2.1) | | | | | | 3.0 | |
| 07 | 250 | 4.2 | | | | | | 2.4 | 3.4 |
| 08 | 260 | 5.9 | 240 | --- | 120 | 2.3 | | 3.0 | 3.5 |
| 09 | 270 | 7.2 | 230 | 4.0 | 120 | 2.7 | | 3.8 | 3.35 |
| 10 | 260 | 8.3 | 230 | 4.2 | 120 | 3.0 | | 4.0 | 3.4 |
| 11 | 270 | 8.4 | 220 | 4.3 | 120 | 3.1 | | 4.1 | 3.3 |
| 12 | 280 | 8.7 | 220 | 4.4 | 120 | 3.1 | | 4.2 | 3.2 |
| 13 | 200 | 0.8 | 220 | 4.3 | 120 | 3.0 | | 4.4 | 3.2 |
| 14 | 270 | 8.2 | 240 | 4.3 | 120 | 2.9 | | 4.5 | 3.3 |
| 15 | 260 | 7.6 | 240 | 4.1 | 120 | 2.0 | | 4.0 | 3.3 |
| 16 | 250 | 7.0 | 250 | --- | 120 | 2.4 | | 4.0 | 3.5 |
| 17 | 230 | 6.0 | | | | | | 3.5 | 3.5 |
| 18 | 230 | 4.3 | | | | | | 3.2 | 3.5 |
| 19 | 260 | 4.1 | | | | | | 3.2 | 3.2 |
| 20 | 250 | 4.0 | | | | | | 3.1 | 3.15 |
| 21 | 250 | 3.4 | | | | | 1.8 | 3.2 | |
| 22 | 280 | 3.0 | | | | | | 3.0 | |
| 23 | 280 | 2.9 | | | | | | 3.0 | |

Time: 127.5°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 31

| Huancayo, Peru (12.0°S, 75.3°W) | | | | | | | | January 1955 |
|---------------------------------|-------------------|-------|-------------------|------|------------------|-----|------|--------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | 270 | (4.3) | | | | | | (3.1) |
| 01 | 270 | (3.3) | | | | | | (3.2) |
| 02 | 270 | (3.1) | | | | | | (3.25) |
| 03 | 270 | (2.2) | | | | | | (3.3) |
| 04 | 270 | (1.5) | | | | | | --- |
| 05 | 260 | 1.4 | | | | | | (3.25) |
| 06 | 250 | 4.3 | | | 120 | 1.5 | 2.6 | 3.3 |
| 07 | 270 | 6.2 | 220 | --- | 110 | 2.3 | 8.2 | 3.2 |
| 08 | 310 | 7.1 | 200 | 4.0 | 100 | --- | 11.0 | 2.9 |
| 09 | 370 | 7.1 | 200 | 4.2 | 100 | --- | 11.8 | 2.5 |
| 10 | 410 | 6.6 | 200 | 4.3 | 100 | --- | 12.1 | 2.4 |
| 11 | 410 | 6.7 | 190 | 4.4 | 100 | --- | 12.1 | 2.5 |
| 12 | 410 | 6.8 | 190 | 4.4 | 100 | --- | 11.5 | 2.5 |
| 13 | 400 | 7.2 | 190 | 4.4 | 100 | --- | 11.5 | 2.6 |
| 14 | 370 | 7.8 | 200 | 4.3 | 100 | 3.3 | 10.1 | 2.6 |
| 15 | 340 | 8.0 | 200 | 4.2 | 110 | 3.2 | 9.3 | 2.7 |
| 16 | 310 | 8.4 | 200 | 4.0 | 100 | 2.9 | 9.0 | 2.8 |
| 17 | 290 | 8.0 | 220 | --- | 110 | 2.5 | 5.3 | 2.85 |
| 18 | 240 | 8.3 | | | 120 | 1.8 | 4.5 | 2.9 |
| 19 | 250 | 7.6 | | | | | | 3.1 |
| 20 | 200 | 7.0 | | | | | | 3.0 |
| 21 | 300 | 6.7 | | | | | | 2.9 |
| 22 | 300 | (5.9) | | | | | | (3.4) |
| 23 | 290 | (5.6) | | | | | | (3.25) |

Time: 75.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 33

| Wakkanai, Japan (45.4°N, 141.7°E) | | | | | | | | December 1954 |
|-----------------------------------|-------------------|------|-------------------|------|------------------|-----|-----|---------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | 280 | 2.8 | | | | | 2.3 | |
| 01 | 280 | 2.9 | | | | | 2.3 | |
| 02 | 280 | 2.9 | | | | | 2.3 | |
| 03 | 260 | 3.0 | | | | | 2.3 | |
| 04 | 250 | 2.8 | | | | | 2.3 | |
| 05 | 250 | 2.7 | | | | | 2.3 | |
| 06 | 260 | 2.6 | | | | | | |
| 07 | 240 | 3.3 | | | | | 2.3 | |
| 08 | 230 | 4.8 | | | | | 2.8 | |
| 09 | 240 | 5.6 | | | | | 3.5 | |
| 10 | 250 | 6.5 | | | | | | |
| 11 | 240 | 6.5 | | | | | | |
| 12 | 240 | 5.7 | | | | | | |
| 13 | 240 | 5.5 | | | | | | |
| 14 | 240 | 5.5 | | | | | | |
| 15 | 230 | 4.8 | | | | | | |
| 16 | 220 | 3.8 | | | | | 2.8 | |
| 17 | 250 | 3.1 | | | | | 2.7 | |
| 18 | 260 | 2.7 | | | | | 2.3 | |
| 19 | 260 | 2.8 | | | | | 3.0 | |
| 20 | 260 | 2.8 | | | | | 2.6 | |
| 21 | 280 | 2.8 | | | | | 2.6 | |
| 22 | 290 | 3.0 | | | | | 2.5 | |
| 23 | 280 | 3.0 | | | | | 2.4 | |

Time: 135.0°E.

Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 35

| Tokyo, Japan (35.7°N, 139.5°E) | | | | | | | | December 1954 |
|--------------------------------|-------------------|------|-------------------|------|------------------|-----|-----|---------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | 270 | 2.8 | | | | | 3.0 | |
| 01 | 270 | 2.8 | | | | | 2.5 | |
| 02 | 260 | 2.9 | | | | | 3.1 | |
| 03 | 240 | 2.8 | | | | | 2.5 | |
| 04 | 240 | 2.7 | | | | | 2.5 | |
| 05 | 250 | 2.5 | | | | | 2.5 | |
| 06 | 260 | 2.5 | | | | | 2.4 | |
| 07 | 230 | 4.4 | 220 | --- | 150 | 1.6 | 2.5 | 3.45 |
| 08 | 230 | 5.2 | 230 | 3.0 | 120 | 2.1 | 2.7 | 3.55 |
| 09 | 240 | 5.6 | 230 | 3.7 | 110 | 2.5 | 3.2 | 3.5 |
| 10 | 240 | 6.0 | 220 | 4.0 | 110 | 2.7 | 3.2 | 3.5 |
| 11 | 240 | 6.5 | 230 | 4.0 | 110 | 2.9 | 3.3 | 3.5 |
| 12 | 240 | 6.0 | 230 | 4.0 | 110 | 2.9 | 3.5 | 3.5 |
| 13 | 240 | 6.0 | 230 | 4.0 | 120 | 2.8 | 3.2 | 3.5 |
| 14 | 240 | 5.8 | 230 | 3.6 | 120 | 2.6 | 3.4 | 3.5 |
| 15 | 230 | 5.5 | 230 | 3.2 | 120 | 2.2 | 3.2 | 3.6 |
| 16 | 220 | 4.8 | 220 | --- | 120 | 1.6 | 2.6 | 3.6 |
| 17 | 220 | 3.5 | --- | --- | | | 2.6 | 3.5 |
| 18 | 240 | 3.0 | | | | | 3.0 | 3.2 |
| 19 | 230 | 3.0 | | | | | 2.5 | 3.3 |
| 20 | 240 | 3.0 | | | | | 2.4 | 3.25 |
| 21 | 250 | 2.6 | | | | | 2.5 | 3.2 |
| 22 | 270 | 2.6 | | | | | 2.5 | 3.0 |
| 23 | 280 | 2.6 | | | | | 2.5 | 3.0 |

Time: 135.0°E.

Sweep: 1.0 Mc to 17.2 Mc in 2 minutes.

Table 32

| Reykjavik, Iceland (64.1°N, 21.8°W) | | | | | | | | December 1954 |
|-------------------------------------|-------------------|-------|-------------------|------|------------------|-----|-------|---------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | --- | --- | | | | | 4.3 | --- |
| 01 | --- | --- | | | | | 4.4 | --- |
| 02 | 300 | (2.3) | | | | | 3.7 | (3.1) |
| 03 | 300 | (2.1) | | | | | 3.1 | (3.2) |
| 04 | 300 | (2.2) | | | | | (3.7) | (3.1) |
| 05 | 300 | (2.2) | | | | | (2.4) | (3.2) |
| 06 | (300) | (1.8) | | | | | (2.9) | (3.2) |
| 07 | --- | --- | | | | | | --- |
| 08 | --- | E | | | | | | --- |
| 09 | 240 | 2.0 | | | | | | 3.3 |
| 10 | 230 | 3.3 | | | | --- | --- | 3.5 |
| 11 | 230 | 4.0 | | | | --- | --- | 3.6 |
| 12 | 230 | 4.5 | --- | --- | | --- | --- | 3.6 |
| 13 | 230 | 4.7 | | | | --- | --- | 3.6 |
| 14 | 230 | 4.3 | | | | --- | --- | 3.6 |
| 15 | 220 | (3.8) | | | | | | (3.5) |
| 16 | 230 | (3.3) | | | | | | (3.3) |
| 17 | 260 | (2.5) | | | | | (3.1) | (3.2) |
| 18 | (280) | (2.0) | | | | | 4.0 | (3.2) |
| 19 | --- | --- | | | | | 3.8 | --- |
| 20 | --- | --- | | | | | 4.0 | --- |
| 21 | --- | --- | | | | | 3.8 | --- |
| 22 | --- | --- | | | | | 3.8 | --- |
| 23 | --- | --- | | | | | (3.8) | --- |

Time: 15.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 16.2 seconds.

Table 34

| Akita, Japan (39.7°N, 140.1°E) | | | | | | | | December 1954 |
|--------------------------------|-------------------|------|-------------------|------|------------------|-----|-----|---------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | 280 | 2.9 | | | | | 2.3 | |
| 01 | 270 | 2.9 | | | | | 2.4 | |
| 02 | 270 | 2.8 | | | | | 2.4 | |
| 03 | 240 | 2.9 | | | | | 2.3 | |
| 04 | 250 | 2.8 | | | | | 2.3 | |
| 05 | 250 | 2.6 | | | | | 2.2 | |
| 06 | 250 | 2.5 | | | | | 2.3 | |
| 07 | 230 | 3.9 | | | | | 2.4 | |
| 08 | 230 | 5.0 | | | | | 3.0 | |
| 09 | 240 | 5.4 | | | | | 3.4 | |
| 10 | 240 | 5.8 | | | | | 3.5 | |
| 11 | 250 | 6.6 | | | | | 3.5 | |
| 12 | 240 | 6.1 | | | | | 3.5 | |
| 13 | 250 | 5.7 | | | | | 3.5 | |
| 14 | 240 | 5.6 | | | | | 3.4 | |
| 15 | 230 | 5.0 | | | | | 3.5 | |
| 16 | 210 | 4.5 | | | | | 3.4 | |
| 17 | 220 | 3.2 | | | | | 3.0 | |
| 18 | 240 | 3.0 | | | | | 3.0 | |
| 19 | 240 | 2.8 | | | | | 2.6 | |
| 20 | 250 | 3.0 | | | | | 2.6 | |
| 21 | 250 | 2.8 | | | | | 2.5 | |
| 22 | 280 | 2.9 | | | | | 2.8 | |
| 23 | 290 | 2.9 | | | | | 2.5 | |

Time: 135.0°E.

Sweep: 0.85 Mc to 22.0 Mc in 2 minutes.

Table 36

| Yamaguchi, Japan (31.2°N, 130.6°E) | | | | | | | | December 1954 |
|------------------------------------|-------------------|------|-------------------|------|------------------|-----|-----|---------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | 310 | 2.6 | | | | | 2.3 | |
| 01 | 290 | 2.7 | | | | | 2.3 | |
| 02 | 270 | 2.8 | | | | | 2.3 | |
| 03 | 260 | 2.8 | | | | | 2.3 | |
| 04 | 250 | 2.7 | | | | | 2.3 | |
| 05 | 250 | 2.4 | | | | | 2.3 | |
| 06 | 200 | 2.4 | | | | | 2.3 | |
| 07 | 240 | 3.3 | | | | | 2.3 | |
| 08 | 240 | 5.2 | | | | | 2.6 | |
| 09 | 250 | 5.6 | | | | | | |
| 10 | 260 | 6.4 | | | | | | |
| 11 | 260 | 6.6 | | | | | | |
| 12 | 260 | 6.6 | | | | | 3.6 | |
| 13 | 260 | 6.8 | | | | | | |
| 14 | 260 | 6.0 | | | | | 3.8 | |
| 15 | 250 | 6.0 | | | | | 3.5 | |
| 16 | 240 | 5.6 | | | | | 3.2 | |
| 17 | 220 | 4.8 | | | | | 3.0 | |
| 18 | 240 | 3.4 | | | | | 3.0 | |
| 19 | 250 | 3.1 | | | | | 2.4 | |
| 20 | 250 | 3.0 | | | | | 2.4 | |
| 21 | 250 | 2.8 | | | | | 2.3 | |
| 22 | 290 | 2.5 | | | | | 2.3 | |
| 23 | 300 | 2.6 | | | | | 2.3 | |

Time: 135.0°E.

Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 37

| Baguio, P. I. (16.4°N, 120.6°E) | | | | | | | |
|---------------------------------|-------------------|------|-------------------|-------|-----|-------|---------------|
| December 1954 | | | | | | | |
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 230 | 3.2 | | | | | 3.35 |
| 01 | 220 | 3.0 | | | | | 3.4 |
| 02 | 220 | 2.6 | | | | 1.6 | 3.4 |
| 03 | 220 | 2.2 | | | | 1.6 | 3.5 |
| 04 | 240 | 1.8 | | | | 1.6 | 3.4 |
| 05 | 270 | 1.8 | | | | 1.7 | 3.25 |
| 06 | 260 | 2.4 | | | | 1.6 | 3.1 |
| 07 | 230 | 5.0 | | | 110 | 1.9 | 2.3 |
| 08 | 280 | 6.6 | 220 | --- | 110 | 2.5 | 3.5 |
| 09 | 290 | 7.8 | 210 | 4.0 | 110 | 2.8 | 4.2 |
| 10 | 300 | 8.5 | 200 | (4.2) | 110 | 3.0 | 6.0 |
| 11 | 320 | 8.8 | 200 | 4.2 | 100 | 3.1 | 6.6 |
| 12 | 310 | 8.8 | 190 | 4.2 | 100 | 3.2 | 6.8 |
| 13 | 310 | 8.8 | 200 | 4.2 | 100 | (3.1) | 6.4 |
| 14 | 290 | 9.0 | 200 | (4.1) | 100 | 3.0 | 5.2 |
| 15 | 270 | 8.9 | 210 | --- | 100 | 2.8 | 5.8 |
| 16 | 250 | 8.9 | 210 | --- | 110 | 2.3 | 4.3 |
| 17 | 210 | 8.3 | --- | --- | 120 | 1.7 | 3.0 |
| 18 | 200 | 7.1 | | | | | 3.5 |
| 19 | 210 | 5.6 | | | | | 3.5 |
| 20 | 220 | 5.1 | | | | | 3.0 |
| 21 | 230 | 4.6 | | | | | 2.2 |
| 22 | 230 | 4.3 | | | | | 3.4 |
| 23 | 220 | 3.8 | | | | | 3.4 |

Time: 120.0°E.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 39

| Capetown, Union of S. Africa (34.2°S, 18.3°E) | | | | | | | |
|---|-------------------|------|-------------------|------|-----|-----|---------------|
| December 1954 | | | | | | | |
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 280 | 3.8 | | | | | 2.3 |
| 01 | 270 | 3.7 | | | | | 2.1 |
| 02 | 270 | 3.6 | | | | | 2.0 |
| 03 | 250 | 3.4 | | | | | 1.8 |
| 04 | 250 | 3.0 | | | | | 1.7 |
| 05 | 250 | 3.1 | | | | | 3.0 |
| 06 | 250 | 4.1 | 250 | --- | 130 | 1.8 | |
| 07 | 310 | 5.0 | 240 | 3.7 | 120 | 2.3 | |
| 08 | 320 | 5.7 | 230 | 4.0 | 120 | 2.7 | 3.4 |
| 09 | 350 | 6.0 | 220 | 4.2 | 110 | 3.0 | 3.8 |
| 10 | 350 | 6.4 | 210 | 4.3 | 110 | 3.2 | 3.7 |
| 11 | 340 | 6.8 | 200 | 4.4 | 110 | 3.4 | 4.2 |
| 12 | 340 | 7.2 | 200 | 4.5 | 110 | 3.4 | 4.1 |
| 13 | 340 | 7.2 | 210 | 4.5 | 110 | 3.4 | 3.7 |
| 14 | 330 | 7.3 | 210 | 4.4 | 110 | 3.3 | 3.9 |
| 15 | 320 | 7.1 | 220 | 4.3 | 110 | 3.2 | 4.1 |
| 16 | 310 | 6.8 | 210 | 4.2 | 110 | 3.1 | 3.6 |
| 17 | 300 | 6.4 | 210 | 4.0 | 110 | 2.8 | 3.4 |
| 18 | 280 | 6.2 | 220 | 3.7 | 120 | 2.4 | 3.1 |
| 19 | 250 | 5.8 | 230 | 3.0 | 120 | 1.9 | 2.6 |
| 20 | 240 | 5.4 | | | | | 2.0 |
| 21 | 230 | 5.0 | | | | | 1.9 |
| 22 | 240 | 4.2 | | | | | 2.0 |
| 23 | 260 | 3.6 | | | | | 2.4 |

Time: 30.0°E.

Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 41*

| Inverness, Scotland (57.4°N, 4.2°W) | | | | | | | |
|-------------------------------------|-------------------|------|-------------------|-------|-------|-------|---------------|
| November 1954 | | | | | | | |
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 335 | 1.9 | | | | | 2.7 |
| 01 | 325 | 1.8 | | | | | 2.7 |
| 02 | 320 | 1.7 | | | | | 2.8 |
| 03 | 305 | 1.6 | | | | | 2.4 |
| 04 | 305 | 1.4 | | | | | 2.5 |
| 05 | 305 | 1.4 | | | | | 2.4 |
| 06 | 330 | 1.5 | | | | | 2.6 |
| 07 | 290 | 1.9 | | | | | 2.2 |
| 08 | 230 | 3.4 | | | (130) | (1.7) | 2.2 |
| 09 | 220 | 4.3 | | | 125 | 1.8 | 2.4 |
| 10 | 230 | 4.8 | 210 | (2.9) | 120 | 2.0 | 2.4 |
| 11 | 235 | 5.4 | 215 | 3.1 | 120 | 2.1 | 2.4 |
| 12 | 245 | 5.3 | 215 | 3.1 | 120 | 2.2 | 2.4 |
| 13 | 235 | 5.5 | 210 | 3.0 | 125 | 2.1 | 2.4 |
| 14 | 235 | 5.4 | 215 | 2.8 | 130 | 1.9 | 2.4 |
| 15 | 225 | 4.9 | | | 130 | 1.8 | 2.4 |
| 16 | 215 | 4.4 | | | | | 2.5 |
| 17 | 230 | 3.7 | | | | | 2.4 |
| 18 | 240 | 3.1 | | | | | 3.3 |
| 19 | 260 | 2.4 | | | | | 3.2 |
| 20 | 300 | 2.0 | | | | | 3.0 |
| 21 | 325 | 1.7 | | | | | 2.8 |
| 22 | 340 | 1.8 | | | | | 2.2 |
| 23 | 350 | 1.8 | | | | | (2.8) |

Time: 0.0°.

Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.

*Average values except foF2 and fEs, which are median values.

Table 38

| Johannesburg, Union of S. Africa (26.2°S, 20.1°E) | | | | | | | |
|---|-------------------|------|-------------------|------|-----|-----|---------------|
| December 1954 | | | | | | | |
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 250 | 4.1 | | | | | 2.5 |
| 01 | 240 | 4.0 | | | | | 2.4 |
| 02 | 240 | 3.6 | | | | | 1.4 |
| 03 | 240 | 3.1 | | | | | 2.4 |
| 04 | 250 | 3.0 | | | | | 2.0 |
| 05 | 250 | 3.3 | | | | | 3.2 |
| 06 | 250 | 4.6 | 230 | 3.2 | 120 | 2.0 | 2.9 |
| 07 | 300 | 5.4 | 230 | 3.8 | 110 | 2.6 | 3.3 |
| 08 | 330 | 5.9 | 220 | 4.1 | 110 | 2.9 | 3.8 |
| 09 | 330 | 6.7 | 210 | 4.3 | 110 | 3.1 | 4.1 |
| 10 | 340 | 7.0 | 200 | 4.4 | 110 | 3.3 | 4.3 |
| 11 | 330 | 7.6 | 200 | 4.5 | 110 | 3.4 | 4.3 |
| 12 | 330 | 8.0 | 200 | 4.5 | 110 | 3.5 | 4.2 |
| 13 | 310 | 8.0 | 200 | 4.4 | 110 | 3.4 | 4.5 |
| 14 | 310 | 8.0 | 200 | 4.4 | 110 | 3.4 | 4.2 |
| 15 | 300 | 7.6 | 200 | 4.2 | 110 | 3.2 | 4.0 |
| 16 | 300 | 7.1 | 210 | 4.1 | 110 | 3.0 | 3.7 |
| 17 | 280 | 7.0 | 210 | 3.8 | 110 | 2.6 | 3.5 |
| 18 | 250 | 6.7 | 220 | 3.1 | 110 | 2.0 | 3.0 |
| 19 | 240 | 6.3 | | | | | 2.4 |
| 20 | 240 | 6.0 | | | | | 2.4 |
| 21 | 240 | 5.3 | | | | | 2.3 |
| 22 | 250 | 4.7 | | | | | 2.6 |
| 23 | 260 | 4.4 | | | | | 2.5 |

Time: 30.0°E.

Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 40

| Tromsø, Norway (69.7°N, 19.0°E) | | | | | | | |
|---------------------------------|-------------------|-------|-------------------|------|-----|-----|---------------|
| November 1954 | | | | | | | |
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | --- | (2.4) | | | | | 4.1 |
| 01 | --- | (2.2) | | | | | 4.0 |
| 02 | --- | (2.2) | | | | | 3.7 |
| 03 | --- | 2.3 | | | | | 2.9 |
| 04 | (270) | 2.2 | | | | | 2.4 |
| 05 | (270) | 1.9 | | | | | 2.8 |
| 06 | --- | 1.7 | | | | | 2.6 |
| 07 | (260) | 1.7 | | | | | 1.8 |
| 08 | 245 | 2.8 | | | --- | --- | 1.9 |
| 09 | 235 | 3.7 | | | --- | --- | 1.0 |
| 10 | 225 | 4.1 | --- | --- | --- | --- | 1.7 |
| 11 | 220 | 4.4 | 225 | --- | --- | --- | 2.5 |
| 12 | 220 | 4.6 | 230 | --- | --- | --- | 1.9 |
| 13 | 230 | 4.6 | --- | --- | --- | --- | 1.9 |
| 14 | 230 | 4.0 | | | --- | --- | 1.6 |
| 15 | 220 | 3.6 | | | --- | --- | 1.9 |
| 16 | 225 | 2.9 | | | | | 2.8 |
| 17 | (245) | (2.8) | | | | | 3.6 |
| 18 | --- | (2.6) | | | | | 3.6 |
| 19 | --- | --- | | | | | 4.0 |
| 20 | --- | --- | | | | | 4.1 |
| 21 | --- | --- | | | | | 3.9 |
| 22 | --- | --- | | | | | 4.0 |
| 23 | --- | --- | | | | | 3.7 |

Time: 15.0°E.

Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 42*

| Slough, England (51.5°N, 0.6°W) | | | | | | | |
|---------------------------------|-------------------|------|-------------------|-------|-----|-----|---------------|
| November 1954 | | | | | | | |
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 200 | 2.9 | | | | | 2.6 |
| 01 | 280 | 3.0 | | | | | 3.0 |
| 02 | 270 | 3.0 | | | | | 3.0 |
| 03 | 265 | 2.7 | | | | | 3.0 |
| 04 | 260 | 2.3 | | | | | 2.7 |
| 05 | 255 | 2.2 | | | | | 3.2 |
| 06 | 255 | 2.2 | | | | | 3.2 |
| 07 | 240 | 3.0 | | | | | 3.1 |
| 08 | 225 | 4.3 | (215) | (2.7) | 130 | 1.7 | 3.1 |
| 09 | 235 | 5.2 | 220 | 3.2 | 125 | 2.0 | 3.6 |
| 10 | 235 | 5.5 | 220 | 3.4 | 120 | 2.3 | 3.8 |
| 11 | 245 | 5.8 | 220 | 3.5 | 125 | 2.4 | 4.0 |
| 12 | 240 | 6.0 | 225 | 3.6 | 125 | 2.5 | 3.9 |
| 13 | 240 | 5.8 | 220 | 3.4 | 125 | 2.4 | 4.2 |
| 14 | 245 | 5.7 | 220 | 3.1 | 125 | 2.2 | 3.6 |
| 15 | 235 | 5.5 | | | 130 | 1.9 | 3.2 |
| 16 | 220 | 4.9 | | | | | 3.2 |
| 17 | 225 | 4.0 | | | | | 3.2 |
| 18 | 235 | 3.4 | | | | | 2.9 |
| 19 | 255 | 2.9 | | | | | 2.6 |
| 20 | 260 | 2.6 | | | | | 2.5 |
| 21 | 280 | 2.5 | | | | | 2.5 |
| 22 | 285 | 2.8 | | | | | 2.4 |
| 23 | 290 | 2.9 | | | | | 2.6 |

Time: 0.0°.

Sweep: 0.55 Mc to 16.5 Mc in 5 minutes.

*Average values except foF2 and fEs, which are median values.

Table 43*

| Singapore, British Malaya (1.3°N, 103.8°E) | | | | | | | | November 1954 |
|--|-------|------|------|-------|-----|-----|-----|---------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 240 | 3.7 | | | | | | 2.9 |
| 01 | 275 | 3.6 | | | | | | 2.0 |
| 02 | 275 | 3.5 | | | | | | 2.9 |
| 03 | 275 | 3.2 | | | | | | 2.9 |
| 04 | 270 | 3.0 | | | | | | 3.0 |
| 05 | 250 | 2.7 | | | | | | 3.2 |
| 06 | 250 | 4.3 | | | 145 | 1.6 | | 3.2 |
| 07 | 255 | 6.6 | 240 | 4.0 | 125 | 2.3 | 2.9 | 3.2 |
| 08 | (290) | 7.1 | 220 | | 120 | 2.8 | 3.5 | 2.9 |
| 09 | 340 | 7.5 | 215 | 4.3 | 110 | 3.1 | 3.7 | 2.5 |
| 10 | 390 | 8.2 | 205 | 4.4 | 110 | 3.3 | 4.6 | 2.3 |
| 11 | 410 | 8.6 | 200 | 4.5 | 110 | 3.4 | 4.6 | 2.1 |
| 12 | 405 | 8.6 | 200 | 4.5 | 110 | 3.4 | 4.6 | 2.1 |
| 13 | 385 | 8.6 | 205 | 4.4 | 110 | 3.3 | 4.6 | 2.1 |
| 14 | 370 | 8.8 | 205 | 4.3 | 110 | 3.2 | 4.8 | 2.2 |
| 15 | 350 | 9.0 | 215 | 4.2 | 110 | 3.0 | 3.4 | 2.4 |
| 16 | 310 | 9.4 | 225 | (4.1) | 120 | 2.6 | 3.8 | 2.5 |
| 17 | 255 | 9.2 | 240 | | 135 | 2.1 | 3.9 | 2.6 |
| 18 | 265 | 9.1 | | | | | 3.0 | 2.6 |
| 19 | 290 | 8.2 | | | | | | 2.7 |
| 20 | 300 | 7.2 | | | | | | 2.7 |
| 21 | 275 | 7.6 | | | | | | 3.0 |
| 22 | 230 | 8.6 | | | | | | 3.5 |
| 23 | 215 | 5.4 | | | | | | 3.3 |

Time: 105.0°E.

Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.

*Average values except foF2 and fEs, which are median values.

Table 45

| Barotonga I. (21.3°S, 159.8°W) | | | | | | | | November 1954 |
|--------------------------------|------|------|------|------|-----|-----|-----|---------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 260 | 6.7 | | | | | 3.6 | (3.1) |
| 01 | 250 | 6.4 | | | | | 3.4 | |
| 02 | 260 | 5.4 | | | | | 3.0 | 3.1 |
| 03 | 280 | 4.7 | | | | | 2.6 | 3.0 |
| 04 | 290 | 4.7 | | | | | 2.5 | 3.0 |
| 05 | 270 | 4.6 | | | | | 2.4 | 3.1 |
| 06 | 250 | 5.7 | --- | --- | --- | 1.8 | 2.9 | 3.25 |
| 07 | 250 | 6.6 | 240 | 3.8 | 110 | 2.4 | 3.7 | 3.4 |
| 08 | 280 | 7.2 | 220 | 4.2 | 110 | 2.8 | 4.6 | 3.25 |
| 09 | 310 | 7.8 | 210 | 4.4 | 105 | 3.1 | 5.4 | 3.1 |
| 10 | 300 | 8.7 | 210 | 4.5 | 105 | 3.2 | 5.6 | 3.0 |
| 11 | 320 | 9.6 | 200 | 4.6 | 105 | 3.4 | 4.8 | 3.0 |
| 12 | 300 | 10.7 | 200 | 4.5 | 105 | 3.4 | 4.8 | 3.1 |
| 13 | 300 | 10.7 | 200 | 4.6 | 105 | 3.4 | 4.6 | 3.0 |
| 14 | 300 | 10.4 | 200 | 4.5 | 105 | 3.3 | 4.4 | 3.0 |
| 15 | 300 | 10.0 | 220 | 4.4 | 105 | 3.1 | 5.0 | 3.2 |
| 16 | 290 | 9.0 | 230 | 4.3 | 110 | 2.9 | 4.7 | 3.1 |
| 17 | 280 | 8.8 | 240 | 4.0 | 110 | 2.5 | 4.6 | 3.1 |
| 18 | 260 | 8.1 | --- | --- | --- | | 4.2 | 3.1 |
| 19 | 250 | 8.0 | | | | | 4.0 | 3.0 |
| 20 | 200 | 7.7 | | | | | 4.2 | 2.9 |
| 21 | 290 | 7.2 | | | | | 3.6 | 2.9 |
| 22 | 290 | 7.1 | | | | | 3.2 | 2.9 |
| 23 | 290 | 7.1 | | | | | 3.5 | 2.95 |

Time: 157.5°W.

Sweep: 1.5 Mc to 20.0 Mc in 5 minutes, manual operation.

Table 47

| Tromsø, Norway (69.7°N, 19.0°E) | | | | | | | | October 1954 |
|---------------------------------|-------|-------|------|------|-----|-----|-----|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | --- | --- | | | | | 4.4 | --- |
| 01 | --- | --- | | | | | 4.2 | --- |
| 02 | --- | (1.8) | | | | | 4.5 | (2.9) |
| 03 | --- | 2.1 | | | | | 3.4 | (2.95) |
| 04 | (290) | 1.7 | | | | | 2.8 | 2.9 |
| 05 | (270) | 2.1 | | | --- | --- | 2.0 | 2.9 |
| 06 | (255) | 2.4 | | | --- | --- | 3.0 | (2.95) |
| 07 | 255 | 3.2 | | | --- | --- | 2.4 | 3.15 |
| 08 | 250 | 3.8 | 240 | --- | --- | --- | 1.4 | 3.3 |
| 09 | 250 | 4.0 | 240 | --- | --- | --- | | 3.35 |
| 10 | 255 | 4.4 | 230 | --- | --- | --- | 2.3 | 3.35 |
| 11 | 260 | 4.6 | 230 | 3.3 | --- | --- | | 3.35 |
| 12 | 255 | 4.7 | 235 | --- | --- | --- | | 3.35 |
| 13 | 240 | 4.6 | 230 | --- | --- | 2.0 | | 3.35 |
| 14 | 240 | 4.1 | 235 | --- | --- | --- | 2.2 | 3.35 |
| 15 | 245 | 4.0 | 250 | --- | --- | --- | 2.4 | 3.3 |
| 16 | 245 | 3.0 | --- | --- | --- | --- | 3.0 | 3.3 |
| 17 | 250 | 3.6 | | | | | 3.8 | 3.1 |
| 18 | (245) | (3.6) | | | | | 4.0 | (3.15) |
| 19 | (255) | (3.2) | | | | | 3.9 | (3.1) |
| 20 | --- | (2.4) | | | | | 3.0 | (3.0) |
| 21 | --- | (2.4) | | | | | 4.2 | --- |
| 22 | --- | --- | | | | | 3.7 | --- |
| 23 | --- | --- | | | | | 3.8 | --- |

Time: 15.0°E.

Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 44

| Nairobi, Kenya (1.3°S, 36.8°E) | | | | | | | | November 1954 |
|--------------------------------|-------|--------|------|------|-----|-----|-------|---------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 200 | >5.4 | | | | | | 3.4 |
| 01 | <240 | 4.3 | | | | | | 3.0 |
| 02 | 260 | 4.9 | | | | | | 3.0 |
| 03 | 250 | >4.6 | | | | | | 3.1 |
| 04 | <240 | >4.0 | | | | | | 3.2 |
| 05 | 220 | 3.6 | | | | | | 3.3 |
| 06 | 240 | 3.6 | | | | | | 3.3 |
| 07 | 250 | 5.9 | 230 | --- | 120 | 2.2 | 3.0 | 3.3 |
| 08 | 280 | 6.9 | 220 | 4.2 | 110 | 2.0 | 3.6 | 3.2 |
| 09 | 320 | 7.8 | 210 | 4.4 | 110 | 3.1 | 3.5 | 3.0 |
| 10 | 330 | 8.6 | 210 | 4.5 | 110 | 3.3 | | 2.0 |
| 11 | 340 | 9.1 | 200 | 4.6 | 110 | 3.4 | 3.7 | 2.0 |
| 12 | 350 | 9.7 | 200 | --- | 100 | 3.5 | | 2.0 |
| 13 | 350 | 9.9 | --- | --- | 110 | --- | (3.8) | 2.0 |
| 14 | 310 | 10.6 | --- | --- | 110 | 3.5 | 3.5 | 2.8 |
| 15 | 350 | 10.1 | 200 | 4.4 | 110 | 3.2 | | 2.0 |
| 16 | 330 | 10.3 | 220 | 4.2 | 110 | 3.0 | | 2.0 |
| 17 | (300) | >10.0 | 230 | 4.0 | 110 | 2.4 | 3.1 | 2.85 |
| 18 | (280) | >10.0 | 250 | --- | --- | --- | 3.0 | 2.9 |
| 19 | 280 | (10.0) | | | | | 2.7 | (3.0) |
| 20 | 300 | --- | | | | | | --- |
| 21 | 290 | --- | | | | | | --- |
| 22 | 260 | --- | | | | | | --- |
| 23 | 220 | >10.0 | | | | | | (3.5) |

Time: 45.0°E.

Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 46

| Christchurch, New Zealand (43.6°S, 172.8°E) | | | | | | | | November 1954 |
|---|-------|------|------|------|-----|-----|-----|---------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 270 | 4.7 | | | | | 3.3 | 3.0 |
| 01 | 260 | 4.4 | | | | | 2.5 | 3.1 |
| 02 | 260 | 4.0 | | | | | 2.9 | 3.1 |
| 03 | 270 | 3.4 | | | | | 2.7 | 3.1 |
| 04 | 270 | 3.4 | | | | | | 3.1 |
| 05 | 250 | 3.8 | 260 | --- | | 1.4 | | 3.25 |
| 06 | 290 | 4.5 | 250 | 3.4 | | 2.2 | | 3.3 |
| 07 | 320 | 4.7 | 240 | 4.0 | | 2.6 | | 3.1 |
| 08 | 320 | 5.1 | 240 | 4.2 | | 2.8 | 4.6 | 3.15 |
| 09 | 320 | 5.5 | 230 | 4.3 | | 3.0 | 4.7 | 3.2 |
| 10 | 320 | 6.0 | 220 | 4.3 | | 3.1 | 4.0 | 3.2 |
| 11 | 300 | 6.1 | 220 | 4.4 | | 3.2 | 4.8 | 3.2 |
| 12 | 300 | 6.2 | 210 | 4.4 | | 3.2 | 4.8 | 3.2 |
| 13 | 320 | 6.0 | 220 | 4.4 | | 3.2 | | 3.2 |
| 14 | 310 | 6.0 | 220 | 4.3 | | 3.1 | | 3.2 |
| 15 | 320 | 5.8 | 230 | 4.2 | | 3.0 | | 3.1 |
| 16 | 300 | 5.9 | 250 | 4.0 | | 2.8 | | 3.15 |
| 17 | 280 | 5.8 | 250 | 3.7 | | 2.4 | | 3.2 |
| 18 | (270) | 5.8 | --- | 3.2 | | 2.0 | 4.1 | 3.2 |
| 19 | 250 | 5.8 | | | | --- | 4.2 | 3.1 |
| 20 | 250 | 6.2 | | | | | 4.0 | 3.0 |
| 21 | 260 | 5.6 | | | | | 3.8 | 3.0 |
| 22 | 260 | 5.3 | | | | | 4.2 | 3.0 |
| 23 | 270 | 4.8 | | | | | 4.2 | 2.95 |

Time: 172.5°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 48

| Nairobi, Kenya (1.3°S, 36.8°E) | | | | | | | | October 1954 |
|--------------------------------|-------|--------|------|------|-----|-----|-------|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 200 | --- | | | | | | --- |
| 01 | 220 | 3.4 | | | | | | 2.9 |
| 02 | <270 | >3.2 | | | | | | 3.0 |
| 03 | (200) | 3.1 | | | | | | 3.0 |
| 04 | 250 | 3.1 | | | | | | 3.1 |
| 05 | 250 | 2.9 | | | | | | 3.2 |
| 06 | 250 | 3.0 | | | | | | 3.2 |
| 07 | 250 | 6.6 | 240 | 3.6 | --- | 2.2 | 3.0 | 3.5 |
| 08 | 260 | 7.8 | 230 | 4.1 | 110 | 2.7 | 3.7 | 3.5 |
| 09 | 290 | 7.8 | 220 | 4.4 | 110 | 3.1 | 3.5 | 3.3 |
| 10 | 310 | 0.4 | 200 | 4.6 | 110 | 3.3 | 3.8 | 3.0 |
| 11 | 310 | 9.4 | --- | 4.6 | 110 | --- | (3.7) | 3.0 |
| 12 | 300 | 9.0 | --- | --- | 110 | --- | | 3.0 |
| 13 | (340) | (9.7) | --- | --- | --- | --- | | (2.8) |
| 14 | 340 | (10.4) | --- | --- | 110 | --- | | (2.75) |
| 15 | 340 | 10.7 | --- | --- | 110 | --- | (3.6) | 2.8 |
| 16 | 320 | >10.6 | --- | 4.4 | 110 | --- | | 2.9 |
| 17 | 300 | --- | 240 | 3.9 | 110 | 2.5 | 3.4 | --- |
| 18 | 270 | --- | 250 | --- | | | 3.8 | --- |
| 19 | 280 | --- | | | | | 2.9 | --- |
| 20 | 270 | --- | | | | | 2.7 | --- |
| 21 | 260 | --- | | | | | | --- |
| 22 | 230 | --- | | | | | | --- |
| 23 | 210 | --- | | | | | | --- |

Time: 45.0°E.

Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 49*

| Falkland Is. (51.7°S, 57.8°W) | | | | | | | | October 1954 |
|-------------------------------|------|------|------|------|-----|-----|-----|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 295 | 4.9 | | | | | | 2.8 |
| 01 | 290 | 4.8 | | | | | | 2.8 |
| 02 | 285 | 4.6 | | | | | | 2.8 |
| 03 | 265 | 4.5 | | | | | | 2.9 |
| 04 | 255 | 4.4 | | | | | | 3.1 |
| 05 | 240 | 4.7 | | | 160 | 1.6 | | 3.3 |
| 06 | 225 | 5.0 | | | 120 | 1.8 | 3.0 | 3.5 |
| 07 | 230 | 5.2 | 225 | | 115 | 2.3 | 3.4 | 3.5 |
| 08 | 290 | 5.7 | 230 | 4.1 | 110 | 2.7 | 3.7 | 3.3 |
| 09 | 300 | 6.1 | 220 | 4.3 | 110 | 2.9 | 4.4 | 3.3 |
| 10 | 290 | 6.4 | 220 | 4.4 | 110 | 3.0 | 4.2 | 3.2 |
| 11 | 280 | 6.9 | 220 | 4.4 | 110 | 3.1 | 4.3 | 3.2 |
| 12 | 280 | 7.7 | 220 | 4.4 | 110 | 3.1 | 4.2 | 3.2 |
| 13 | 270 | 7.9 | 225 | 4.4 | 110 | 3.1 | 3.7 | 3.3 |
| 14 | 265 | 7.1 | 225 | 4.3 | 105 | 3.0 | | 3.4 |
| 15 | 255 | 6.3 | 230 | 4.0 | 110 | 2.8 | 3.3 | 3.4 |
| 16 | 255 | 6.0 | 230 | 3.8 | 105 | 2.5 | 2.5 | 3.4 |
| 17 | 250 | 5.8 | 230 | | 125 | 2.1 | 2.9 | 3.4 |
| 18 | 245 | 5.8 | | | 140 | 1.7 | 2.5 | 3.3 |
| 19 | 250 | 5.8 | | | | | 2.6 | 3.1 |
| 20 | 265 | 5.9 | | | | | 1.8 | 2.9 |
| 21 | 265 | 5.6 | | | | | | 2.9 |
| 22 | 275 | 5.3 | | | | | | 2.8 |
| 23 | 290 | 5.2 | | | | | | 2.8 |

Time: 60.0°W.

Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.

*Average values except foF2 and fEs, which are median values.

Table 50*

| Port Lockroy (64.8°S, 63.5°W) | | | | | | | | October 1954 |
|-------------------------------|-------|------|------|-------|-------|-------|-----|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 280 | 5.0 | | | | | | 2.7 |
| 01 | 290 | 4.5 | | | | | | 2.7 |
| 02 | 280 | 4.2 | | | | | | 2.8 |
| 03 | 275 | 4.0 | | | | | | 2.8 |
| 04 | 260 | 3.9 | | | | | | 2.9 |
| 05 | 245 | 4.2 | | | | | | 3.0 |
| 06 | 235 | 4.3 | | | (140) | (1.8) | | 3.2 |
| 07 | 245 | 4.6 | | | 130 | 1.9 | | 3.2 |
| 08 | 250 | 5.1 | | | 120 | 2.1 | | 3.3 |
| 09 | 290 | 5.2 | 220 | (3.8) | 110 | 2.3 | | 3.2 |
| 10 | 290 | 5.5 | 220 | 3.9 | 100 | 2.6 | 3.8 | 3.3 |
| 11 | 300 | 5.6 | 215 | 4.0 | 100 | 2.7 | 4.0 | 3.2 |
| 12 | 280 | 6.1 | 215 | 3.9 | 100 | 2.8 | 4.0 | 3.3 |
| 13 | 200 | 5.8 | 220 | 3.9 | 100 | 2.8 | | 3.2 |
| 14 | 265 | 5.8 | 215 | 3.9 | 100 | 2.7 | 3.3 | 3.2 |
| 15 | (200) | 5.8 | 210 | (3.7) | 100 | 2.6 | | 3.3 |
| 16 | (250) | 5.5 | 220 | | 110 | 2.4 | | 3.3 |
| 17 | 240 | 5.5 | | | 120 | 2.1 | | 3.2 |
| 18 | 240 | 5.4 | | | 130 | 1.8 | | 3.2 |
| 19 | 250 | 5.4 | | | 140 | (1.7) | 2.0 | 3.0 |
| 20 | 260 | 6.1 | | | | | | 2.9 |
| 21 | 260 | 6.4 | | | | | | 2.8 |
| 22 | 260 | 6.1 | | | | | | 2.9 |
| 23 | 270 | 5.7 | | | | | | 2.8 |

Time: 60.0°W.

Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.

*Average values except foF2 and fEs, which are median values.

Table 51

| Tromsø, Norway (69.7°N, 19.0°E) | | | | | | | | September 1954 |
|---------------------------------|-------|-------|------|------|-----|-------|-----|----------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | | | | | | | 5.0 | |
| 01 | --- | --- | | | | | 4.0 | --- |
| 02 | --- | --- | | | | | 4.4 | --- |
| 03 | --- | --- | | | | | 3.8 | --- |
| 04 | --- | (2.2) | | | | | 3.2 | (3.0) |
| 05 | --- | (2.3) | | | | | 3.0 | --- |
| 06 | --- | 3.0 | 260 | --- | --- | --- | 2.8 | (3.1) |
| 07 | --- | 3.4 | 245 | --- | --- | 1.9 | 2.8 | --- |
| 08 | --- | 3.6 | 245 | --- | --- | 2.1 | --- | --- |
| 09 | (380) | 3.7 | 240 | 3.5 | 105 | 2.2 | --- | (3.15) |
| 10 | (365) | 4.1 | 230 | 3.6 | --- | 2.3 | --- | 3.05 |
| 11 | 330 | 4.4 | 230 | 3.6 | --- | --- | --- | 3.1 |
| 12 | 325 | 4.3 | 220 | 3.6 | 110 | --- | --- | 3.2 |
| 13 | (305) | 4.2 | 215 | 3.6 | 120 | 2.4 | --- | (3.1) |
| 14 | (310) | 4.0 | 225 | --- | --- | (2.3) | --- | 3.3 |
| 15 | (270) | 3.8 | 225 | --- | 120 | 2.2 | --- | 3.3 |
| 16 | (270) | 3.7 | 245 | --- | 120 | 2.0 | 2.7 | 3.3 |
| 17 | (275) | 3.6 | 250 | --- | 110 | 1.8 | 3.6 | 3.3 |
| 18 | (260) | 3.5 | --- | --- | --- | --- | 4.0 | 3.2 |
| 19 | --- | (3.1) | | | | | 4.2 | (3.1) |
| 20 | --- | --- | | | | | 4.0 | --- |
| 21 | --- | --- | | | | | 4.1 | --- |
| 22 | --- | --- | | | | | 4.4 | --- |
| 23 | --- | --- | | | | | 4.6 | --- |

Time: 15.0°E.

Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 52

| Townsville, Australia (19.3°S, 146.7°E) | | | | | | | | September 1954 |
|---|-------|-------|------|------|-----|-----|-------|----------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 240 | 3.0 | | | | | 1.7 | 3.2 |
| 01 | 240 | (3.5) | | | | | 2.0 | (3.2) |
| 02 | 220 | 3.2 | | | | | 1.8 | 3.35 |
| 03 | 250 | 2.4 | | | | | 2.0 | 3.2 |
| 04 | 270 | 2.4 | | | | | 2.1 | 3.0 |
| 05 | 290 | (2.4) | | | | | | (3.0) |
| 06 | 270 | 2.7 | | | | | 1.8 | (3.0) |
| 07 | 250 | 4.8 | 250 | --- | 120 | 1.8 | 2.3 | 3.3 |
| 08 | 280 | 5.6 | 240 | 3.8 | 100 | 2.3 | 3.3 | 3.3 |
| 09 | 300 | 6.4 | 230 | 4.0 | 100 | 2.9 | 3.5 | 3.2 |
| 10 | 270 | 7.5 | 220 | 4.1 | 110 | 3.2 | 3.6 | 3.4 |
| 11 | 280 | 6.0 | 200 | 4.3 | 100 | 3.2 | 3.8 | 3.3 |
| 12 | (300) | 6.3 | 210 | 4.3 | 100 | 3.2 | 3.7 | 3.2 |
| 13 | 300 | 5.9 | 200 | 4.2 | 110 | 3.2 | 3.7 | 3.2 |
| 14 | 300 | 6.0 | 200 | 4.1 | 110 | 3.1 | 3.8 | 3.2 |
| 15 | 300 | 5.5 | 200 | 4.0 | 100 | 3.0 | 3.8 | 3.2 |
| 16 | 200 | 5.5 | 220 | 3.8 | 110 | 2.7 | 3.7 | 3.25 |
| 17 | 250 | >5.2 | 220 | --- | 120 | 2.2 | 3.6 | 3.3 |
| 18 | 250 | (5.0) | | | | | 2.6 | 3.3 |
| 19 | 250 | (4.5) | | | | | 2.0 | (3.2) |
| 20 | 250 | >4.0 | | | | | 2.4 | (3.2) |
| 21 | <270 | >3.0 | | | | | 1.8 | (3.0) |
| 22 | 200 | (3.7) | | | | | (1.8) | (3.0) |
| 23 | 260 | (4.0) | | | | | 1.0 | (3.1) |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 53

| Brisbane, Australia (27.5°S, 153.0°E) | | | | | | | | September 1954 |
|---------------------------------------|------|------|------|------|-----|-------|-------|----------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 250 | 3.9 | | | | | | 3.15 |
| 01 | 250 | 3.8 | | | | | | 3.3 |
| 02 | 240 | 3.5 | | | | | | 3.2 |
| 03 | 250 | 3.3 | | | | | | 3.2 |
| 04 | 250 | 3.0 | | | | | | 3.0 |
| 05 | 260 | 2.8 | | | | | | 3.0 |
| 06 | 250 | 3.6 | | | | | | 3.3 |
| 07 | 270 | 4.9 | 250 | 3.7 | 110 | (2.1) | | 3.4 |
| 08 | 300 | 5.4 | 250 | 4.0 | 110 | (2.7) | | 3.25 |
| 09 | 300 | 5.5 | 240 | 4.2 | 110 | (3.1) | (3.5) | 3.3 |
| 10 | 300 | 5.7 | 230 | 4.2 | 100 | 3.2 | (3.4) | 3.4 |
| 11 | 310 | 5.6 | 210 | >4.2 | 110 | 3.3 | | 3.3 |
| 12 | 300 | 5.9 | 220 | 4.3 | 110 | 3.3 | | 3.3 |
| 13 | 300 | 5.9 | 200 | 4.2 | 100 | 3.2 | | 3.3 |
| 14 | 300 | 5.6 | 200 | 4.2 | 100 | 3.2 | | 3.4 |
| 15 | 290 | 5.4 | 210 | 4.0 | 100 | 2.8 | 4.0 | 3.4 |
| 16 | 270 | 5.1 | 220 | 3.6 | 120 | --- | 3.4 | 3.4 |
| 17 | 250 | 4.8 | --- | --- | --- | 1.9 | | 3.4 |
| 18 | 240 | 4.6 | | | | | | 3.2 |
| 19 | 250 | 4.3 | | | | | | 3.1 |
| 20 | 260 | 4.0 | | | | | | 3.0 |
| 21 | 270 | 4.1 | | | | | | 3.0 |
| 22 | 270 | 4.0 | | | | | | 3.0 |
| 23 | 260 | 4.0 | | | | | | 3.05 |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 54

| Canberra, Australia (35.3°S, 149.0°E) | | | | | | | | September 1954 |
|---------------------------------------|-------|-------|------|-------|-------|-------|-----|----------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | --- | 3.0 | | | | | | 3.0 |
| 01 | --- | 3.0 | | | | | | 3.0 |
| 02 | --- | 2.9 | | | | | | 3.05 |
| 03 | (240) | (2.9) | | | | | | 3.1 |
| 04 | --- | (2.4) | | | | | | 3.0 |
| 05 | --- | 2.4 | | | | | | 3.0 |
| 06 | (270) | 2.8 | | | | | | 3.1 |
| 07 | 250 | 3.8 | 250 | --- | --- | 2.0 | | 3.3 |
| 08 | 320 | 4.3 | 240 | 3.8 | 110 | 2.3 | | 3.2 |
| 09 | 350 | 4.6 | 230 | 4.0 | 110 | 2.7 | | 3.1 |
| 10 | 370 | 4.9 | 220 | 4.0 | 110 | 2.9 | | 3.1 |
| 11 | 340 | 5.0 | 210 | 4.1 | 110 | 3.0 | | 3.1 |
| 12 | 350 | 5.2 | 220 | 4.1 | 110 | 3.1 | | 3.0 |
| 13 | 310 | 5.5 | 210 | 4.1 | 110 | 3.1 | | 3.2 |
| 14 | 300 | 5.4 | 220 | 4.0 | 110 | 3.0 | | 3.2 |
| 15 | 290 | 5.0 | 220 | 4.0 | 110 | 2.8 | | 3.3 |
| 16 | 290 | 4.9 | 220 | 3.5 | (110) | (2.4) | | 3.3 |
| 17 | 260 | 4.6 | 240 | (3.0) | --- | 1.9 | | 3.3 |
| 18 | 240 | 4.2 | | | | | | 3.2 |
| 19 | --- | 4.0 | | | | | | 3.0 |
| 20 | --- | 3.6 | | | | | | 3.0 |
| 21 | --- | 3.5 | | | | | | 3.0 |
| 22 | --- | 3.4 | | | | | | 3.0 |
| 23 | --- | (3.1) | | | | | | 2.9 |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 55

| Hobart, Tasmania (42.9°S, 147.3°E) | | | | | | | | September 1954 |
|------------------------------------|-------------------|------|-------------------|------|------------------|-----|-----|----------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | 270 | 1.9 | | | | | | 3.0 |
| 01 | 280 | 1.7 | | | | | | 3.0 |
| 02 | 300 | 1.8 | | | | | | 2.9 |
| 03 | 280 | 1.8 | | | | | | 3.0 |
| 04 | 280 | 1.7 | | | | | | 3.0 |
| 05 | 300 | 1.7 | | | | | | 3.0 |
| 06 | 260 | 2.1 | | | | | | 3.1 |
| 07 | 230 | 3.5 | | | | | | 3.1 |
| 08 | 200 | 3.8 | | | 100 | 1.9 | | 3.1 |
| 09 | G | 4.0 | 200 | 3.9 | 100 | 2.5 | | G |
| 10 | 460 | 4.5 | 200 | 4.0 | 100 | 2.8 | | 2.7 |
| 11 | 350 | 4.7 | 200 | 4.0 | 100 | 2.9 | | 2.8 |
| 12 | 360 | 5.0 | 200 | 4.1 | 100 | 3.0 | | 2.8 |
| 13 | 350 | 4.8 | 200 | 4.0 | 100 | 3.0 | | 2.9 |
| 14 | 340 | 5.0 | 200 | 4.0 | 100 | 2.8 | | 2.9 |
| 15 | 300 | 5.0 | 200 | 3.9 | 100 | 2.6 | | 3.0 |
| 16 | 200 | 4.6 | --- | --- | 100 | 2.2 | | 3.1 |
| 17 | 220 | 4.5 | | | 100 | 1.8 | | 3.1 |
| 18 | 230 | 4.2 | | | | | | 3.0 |
| 19 | 250 | 3.7 | | | | | | 2.9 |
| 20 | 250 | 3.2 | | | | | | 2.9 |
| 21 | 260 | 2.5 | | | | | | 3.0 |
| 22 | 270 | 2.1 | | | | | | 3.0 |
| 23 | 270 | 2.0 | | | | | | 3.0 |

Time: 150.0°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 57

| Brisbane, Australia (27.5°S, 153.0°E) | | | | | | | | August 1954 |
|---------------------------------------|-------------------|------|-------------------|------|------------------|-------|-----|-------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | --- | 3.5 | | | | | | 3.1 |
| 01 | --- | 3.5 | | | | | | 3.1 |
| 02 | --- | 3.6 | | | | | 2.0 | 3.2 |
| 03 | --- | 3.5 | | | | | | 3.25 |
| 04 | --- | 3.3 | | | | | 2.2 | 3.2 |
| 05 | --- | 3.0 | | | | | 2.0 | 3.2 |
| 06 | --- | 3.0 | | | | | | 3.2 |
| 07 | 240 | >4.2 | --- | --- | 160 | 2.0 | | 3.5 |
| 08 | 250 | 4.8 | 240 | 3.9 | 110 | 2.4 | | 3.4 |
| 09 | 280 | 5.4 | 250 | 4.1 | 110 | (3.0) | | 3.35 |
| 10 | 280 | 5.6 | 240 | 4.2 | 110 | 3.1 | | 3.4 |
| 11 | 280 | 5.6 | 230 | 4.2 | 110 | 3.2 | | 3.4 |
| 12 | 290 | 5.1 | 220 | 4.2 | 110 | 3.2 | 4.1 | 3.35 |
| 13 | 300 | 5.2 | 210 | 4.2 | 110 | 3.1 | 4.2 | 3.3 |
| 14 | 300 | 5.4 | 200 | 4.1 | 110 | 3.0 | 4.1 | 3.3 |
| 15 | 270 | 5.4 | 220 | 3.9 | 110 | 2.8 | 3.8 | 3.4 |
| 16 | 250 | 4.8 | 220 | 3.5 | 120 | 2.5 | 3.0 | 3.4 |
| 17 | 240 | 4.7 | | | 150 | 1.8 | 3.3 | 3.5 |
| 18 | --- | 4.3 | | | | | 2.2 | 3.4 |
| 19 | --- | 4.0 | | | | | | 3.2 |
| 20 | --- | 3.5 | | | | | | 3.0 |
| 21 | --- | 3.6 | | | | | | 3.1 |
| 22 | --- | 3.5 | | | | | | 3.6 |
| 23 | --- | 3.5 | | | | | | (3.0) |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 59

| Hobart, Tasmania (42.9°S, 147.3°E) | | | | | | | | August 1954 |
|------------------------------------|-------------------|------|-------------------|------|------------------|-----|-----|-------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | 270 | 2.0 | | | | | 3.0 | 3.0 |
| 01 | 270 | 2.0 | | | | | 3.5 | 2.9 |
| 02 | 270 | 2.0 | | | | | 3.0 | 3.0 |
| 03 | 260 | 2.0 | | | | | 3.4 | 3.0 |
| 04 | 250 | 2.0 | | | | | 3.2 | 3.0 |
| 05 | 250 | 1.9 | | | | | | 3.1 |
| 06 | 250 | 1.8 | | | | | | 3.0 |
| 07 | 230 | 3.0 | | | --- | 1.5 | | 3.1 |
| 08 | 220 | 3.7 | | | 100 | 2.0 | | 3.2 |
| 09 | 200 | 4.2 | | | 100 | 2.4 | | 3.2 |
| 10 | 200 | 4.4 | | | 100 | 2.5 | 3.2 | 3.1 |
| 11 | 300 | 4.7 | 200 | 3.9 | 100 | 2.7 | 3.0 | 3.1 |
| 12 | 300 | 5.0 | 200 | 4.0 | 100 | 2.8 | 3.3 | 3.1 |
| 13 | 280 | 5.2 | 200 | 3.9 | 100 | 2.8 | 3.3 | 3.1 |
| 14 | 200 | 5.0 | 200 | 3.8 | 100 | 2.6 | | 3.1 |
| 15 | 200 | 5.0 | | | 100 | 2.4 | | 3.2 |
| 16 | 200 | 5.0 | | | 100 | 2.0 | | 3.2 |
| 17 | 210 | 4.5 | | | 120 | 1.6 | | 3.2 |
| 18 | 220 | 3.7 | | | | | | 3.0 |
| 19 | 250 | 3.3 | | | | | | 3.0 |
| 20 | 250 | 2.7 | | | | | | 3.0 |
| 21 | 260 | 2.1 | | | | | | 3.0 |
| 22 | 260 | 2.6 | | | | | | 3.0 |
| 23 | 260 | 2.0 | | | | | 2.5 | 3.1 |

Time: 150.0°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 56

| Townsville, Australia (19.3°S, 146.7°E) | | | | | | | | August 1954 |
|---|-------------------|-------|-------------------|------|------------------|------|-------|-------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | 250 | (3.2) | | | | | 1.8 | (3.2) |
| 01 | 250 | (3.1) | | | | | 1.8 | (3.2) |
| 02 | 240 | (3.2) | | | | | 1.9 | (3.3) |
| 03 | 220 | (2.8) | | | | | 2.7 | (3.4) |
| 04 | 240 | (2.4) | | | | | 2.5 | (3.05) |
| 05 | 260 | (2.3) | | | | | 2.7 | (3.0) |
| 06 | 270 | (2.3) | | | | | 2.9 | (3.0) |
| 07 | 250 | 4.3 | | | 140 | <1.4 | 3.1 | 3.4 |
| 08 | 280 | 5.3 | 240 | 3.7 | 110 | 2.2 | 3.1 | 3.4 |
| 09 | 200 | 6.0 | 230 | 4.0 | 110 | 2.7 | 3.6 | 3.4 |
| 10 | 280 | 6.2 | 220 | 4.0 | 110 | 3.0 | 3.7 | 3.4 |
| 11 | 280 | 6.2 | 210 | 4.2 | 110 | 3.1 | 3.6 | 3.4 |
| 12 | 280 | 5.6 | 210 | 4.2 | 110 | 3.1 | 3.6 | 3.4 |
| 13 | 300 | 5.5 | 200 | 4.2 | 110 | 3.1 | 3.7 | 3.3 |
| 14 | 290 | 5.6 | 200 | 4.1 | 110 | 3.0 | 4.0 | 3.3 |
| 15 | 280 | 5.4 | 200 | 4.0 | 110 | 2.9 | 3.7 | 3.4 |
| 16 | 280 | 5.2 | 210 | 3.7 | 120 | 2.6 | 3.7 | 3.3 |
| 17 | 240 | 5.2 | 220 | 3.0 | 130 | 2.0 | 3.6 | 3.4 |
| 18 | 240 | 4.8 | | | | | 3.0 | 3.4 |
| 19 | 240 | 4.2 | | | | | 3.2 | 3.2 |
| 20 | 240 | 3.6 | | | | | 3.0 | 3.25 |
| 21 | 280 | 3.1 | | | | | 2.3 | 3.0 |
| 22 | 280 | (3.2) | | | | | (2.4) | (3.05) |
| 23 | 260 | 3.2 | | | | | 2.2 | 3.2 |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 58

| Canberra, Australia (35.3°S, 149.0°E) | | | | | | | | August 1954 |
|---------------------------------------|-------------------|-------|-------------------|-------|------------------|-----|-------|-------------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | --- | 3.0 | | | | | | 3.1 |
| 01 | --- | 3.1 | | | | | | 3.1 |
| 02 | (250) | 3.2 | | | | | | 3.0 |
| 03 | (250) | (3.4) | | | | | (2.5) | (3.1) |
| 04 | (230) | (3.2) | | | | | | (3.1) |
| 05 | (230) | 3.1 | | | | | | 3.1 |
| 06 | --- | (2.6) | | | | | | (3.1) |
| 07 | 250 | 3.6 | | | | | | 3.4 |
| 08 | 240 | 4.2 | 240 | --- | (120) | 2.0 | | 3.6 |
| 09 | 270 | 4.6 | 250 | 3.8 | 110 | 2.5 | | 3.4 |
| 10 | 300 | 4.7 | 240 | 4.0 | 110 | 2.7 | | 3.4 |
| 11 | 300 | 5.0 | 220 | 4.0 | 110 | 2.9 | | 3.3 |
| 12 | 300 | 5.2 | 220 | 4.0 | 110 | 3.0 | (3.3) | 3.2 |
| 13 | 300 | 5.2 | 220 | 4.0 | 110 | 3.0 | 3.3 | 3.3 |
| 14 | 290 | 5.3 | 210 | 4.0 | 110 | 2.9 | | 3.3 |
| 15 | 270 | 5.3 | 220 | 3.8 | 110 | 2.7 | | 3.4 |
| 16 | 250 | 5.0 | 220 | (3.5) | 110 | 2.3 | | 3.4 |
| 17 | 240 | 4.6 | --- | --- | | | (2.0) | 3.4 |
| 18 | --- | 4.1 | | | | | | 3.2 |
| 19 | --- | 3.8 | | | | | | 3.1 |
| 20 | --- | 3.6 | | | | | | 3.1 |
| 21 | --- | 3.3 | | | | | | 3.1 |
| 22 | --- | (3.0) | | | | | | 3.1 |
| 23 | --- | (3.0) | | | | | | 3.0 |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 60*

| Inverness, Scotland (57.4°N, 4.2°W) | | | | | | | | July 1954 |
|-------------------------------------|-------------------|-------|-------------------|-------|------------------|-----|-----|-----------|
| Time | h ¹ F2 | foF2 | h ¹ F1 | foF1 | h ¹ E | foE | fEs | (M3000)F2 |
| 00 | 260 | (3.1) | | | | | 2.5 | 3.0 |
| 01 | 260 | (2.6) | | | | | 2.4 | 3.1 |
| 02 | 265 | (2.3) | | | | | 2.4 | (3.0) |
| 03 | 270 | (2.4) | | | | | 2.5 | (3.0) |
| 04 | 285 | 2.8 | (250) | (2.5) | | | 2.6 | 2.9 |
| 05 | 355 | 3.4 | 230 | 2.9 | 125 | 1.7 | 2.8 | 3.0 |
| 06 | 410 | 3.7 | 215 | 3.3 | 115 | 2.0 | 3.2 | 3.0 |
| 07 | 430 | 3.9 | 210 | 3.6 | 110 | 2.3 | 3.3 | (3.2) |
| 08 | 435 | 3.9 | 205 | 3.7 | 110 | 2.5 | 3.1 | (3.1) |
| 09 | 405 | 4.4 | 210 | 3.9 | 105 | 2.7 | 3.6 | 3.1 |
| 10 | 395 | 4.4 | 205 | 4.0 | 105 | 2.8 | 4.4 | (3.2) |
| 11 | 395 | 4.5 | 210 | 4.1 | 100 | 2.9 | 3.7 | (3.2) |
| 12 | 420 | 4.5 | 205 | 4.1 | 105 | 2.9 | 3.6 | (3.1) |
| 13 | 440 | 4.5 | 210 | 4.1 | 105 | 3.0 | 3.7 | (3.1) |
| 14 | 410 | 4.4 | 210 | 4.0 | 105 | 3.0 | 4.2 | (3.0) |
| 15 | 435 | 4.4 | 210 | 4.0 | 105 | 2.9 | 3.3 | 3.0 |
| 16 | 405 | 4.3 | 215 | 3.9 | 105 | 2.7 | 3.3 | 3.0 |
| 17 | 375 | 4.4 | 215 | 3.8 | 110 | 2.5 | 4.4 | 2.9 |
| 18 | 325 | 4.5 | 215 | 3.6 | 110 | 2.2 | 3.5 | 3.1 |
| 19 | 305 | 4.6 | 235 | 3.3 | 125 | 2.0 | 3.3 | 3.1 |
| 20 | 260 | 4.6 | (230) | (2.9) | 140 | 1.7 | 3.4 | 3.2 |
| 21 | 235 | 4.5 | | | | | 2.5 | 3.3 |
| 22 | 235 | (4.2) | | | | | 2.4 | 3.2 |
| 23 | 250 | (3.6) | | | | | 2.3 | (3.1) |

Time: 0.0°E.

Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.

*Average values except foF2 and fEs, which are median values.

Table 61

| Delhi, India (28.6°N, 77.1°E) | | | | | | | | |
|-------------------------------|-------|------|------|------|-----|-----|-----|-----------|
| July 1954 | | | | | | | | |
| Time | * | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | (310) | 4.8 | | | | | | (3.05) |
| 01 | --- | 4.6 | | | | | | (3.25) |
| 02 | --- | 4.6 | | | | | | (3.1) |
| 03 | | | | | | | | |
| 04 | --- | 4.2 | | | | | | (3.25) |
| 05 | 280 | 4.5 | | | | | | 3.35 |
| 06 | 260 | 4.6 | | | | | | 3.4 |
| 07 | 280 | 5.2 | | | | | | 3.35 |
| 08 | 280 | 5.9 | | | | | | 3.15 |
| 09 | 310 | 6.8 | | | | | | 3.1 |
| 10 | 320 | 7.0 | | | | | | 3.0 |
| 11 | 320 | >7.0 | | | | | | 2.95 |
| 12 | 320 | 7.2 | | | | | | 3.05 |
| 13 | 320 | 7.6 | | | | | | 3.05 |
| 14 | 320 | 7.2 | | | | | | 3.05 |
| 15 | 320 | 7.3 | | | | | | 3.05 |
| 16 | 300 | 7.4 | | | | | | 3.1 |
| 17 | 280 | 7.0 | | | | | | 3.3 |
| 18 | 280 | >6.2 | | | | | | 3.3 |
| 19 | 260 | 6.3 | | | | | | 3.4 |
| 20 | 240 | 6.0 | | | | | | 3.45 |
| 21 | 240 | 5.4 | | | | | | 3.45 |
| 22 | 280 | 4.8 | | | | | | 3.4 |
| 23 | (280) | 4.8 | | | | | | (3.1) |

Time: 75.0°E.

Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.

*Height at 0.83 foF2.

**Average values; other columns, median values.

Table 63

| Bombay, India (19.0°N, 73.0°E) | | | | | | | | |
|--------------------------------|-----|------|------|------|-----|-----|-----|-----------|
| July 1954 | | | | | | | | |
| Time | * | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | | | | | | | | |
| 06:30 | 270 | 4.6 | | | | | | 3.15 |
| 07 | 300 | 4.9 | | | | | | 3.1 |
| 08:30 | 330 | 6.3 | | | | | | 3.0 |
| 09 | 330 | 6.3 | | | | | | 2.9 |
| 10 | 360 | 6.9 | | | | | | 2.8 |
| 11 | 420 | 7.3 | | | | | | 2.5 |
| 12 | 420 | 8.2 | | | | | | 2.45 |
| 13 | 420 | 8.4 | | | | | | 2.5 |
| 14 | 420 | 8.7 | | | | | | 2.6 |
| 15 | 400 | 8.7 | | | | | | 2.6 |
| 16 | 390 | 8.6 | | | | | | 2.65 |
| 17 | 360 | 7.9 | | | | | | 2.75 |
| 18 | 360 | 7.4 | | | | | | 2.9 |
| 19 | 330 | 6.8 | | | | | | 3.0 |
| 20 | 320 | 6.2 | | | | | | 3.1 |
| 21 | 270 | 4.8 | | | | | | 3.35 |
| 22 | 240 | 4.2 | | | | | | 3.45 |
| 23 | | | | | | | | |

Time: 75.0°E.

Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.

*Height at 0.83 foF2.

**Average values; other columns, median values.

Table 65

| Tiruchy, India (10.8°N, 78.8°E) | | | | | | | | |
|---------------------------------|-------|-------|------|------|-----|-----|-----|-----------|
| July 1954 | | | | | | | | |
| Time | * | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | | | | | | | | |
| 06 | 360 | 4.6 | | | | | | (2.85) |
| 07 | 420 | 6.0 | | | | | | 2.5 |
| 08 | 460 | 6.4 | | | | | | 2.35 |
| 09 | 510 | 6.1 | | | | | | 2.2 |
| 10 | 510 | >6.0 | | | | | | 2.15 |
| 11 | 510 | 6.0 | | | | | | 2.1 |
| 12 | 540 | 6.0 | | | | | | 2.15 |
| 13 | 540 | 6.2 | | | | | | 2.1 |
| 14 | 540 | >6.2 | | | | | | 2.1 |
| 15 | 510 | 6.8 | | | | | | 2.2 |
| 16 | 480 | 7.0 | | | | | | 2.25 |
| 17 | 450 | 7.5 | | | | | | 2.35 |
| 18 | 420 | 7.1 | | | | | | 2.45 |
| 19 | 420 | 7.0 | | | | | | 2.5 |
| 20 | (390) | (6.2) | | | | | | (2.55) |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |

Time: 75.0°E.

Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.

*Height at 0.83 foF2.

**Average values; other columns, median values.

Table 62

| Calcutta, India (22.6°N, 88.4°E) | | | | | | | | |
|----------------------------------|-------|-------|------|------|-----|-----|-------|-----------|
| July 1954 | | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | (300) | (4.4) | | | | | | (2.7) |
| 01 | --- | (4.2) | | | | | | |
| 02 | --- | (4.4) | | | | | (5.4) | |
| 03 | --- | --- | | | | | (5.2) | --- |
| 04 | --- | (3.7) | | | | | | |
| 05 | (240) | (3.0) | | | | | | |
| 06 | (240) | (4.8) | | | | | 3.2 | (2.95) |
| 07 | --- | --- | | | | | (6.5) | |
| 08 | --- | (6.4) | | | | | (5.3) | |
| 09 | --- | (6.5) | | | | | (4.4) | --- |
| 10 | --- | (8.2) | | | | | (7.1) | |
| 11 | (300) | (9.0) | | | | | (5.2) | |
| 12 | (240) | 8.7 | | | | | 5.9 | (2.6) |
| 13 | (240) | 8.9 | | | | | 5.2 | |
| 14 | (240) | 9.0 | | | | | 4.6 | |
| 15 | 240 | 9.0 | | | | | 4.8 | 2.6 |
| 16 | (260) | 9.0 | | | | --- | 4.6 | |
| 17 | (240) | 9.2 | | | | --- | 4.0 | |
| 18 | (270) | 8.9 | | | | | (4.5) | (2.8) |
| 19 | (260) | 8.6 | | | | | 5.0 | |
| 20 | (240) | 8.3 | | | | | (4.3) | |
| 21 | (270) | 5.3 | | | | | | (2.85) |
| 22 | (285) | 4.8 | | | | | | |
| 23 | (300) | 4.6 | | | | | | |

Time: 90.0°E.

Sweep: 0.5 Mc to 18.0 Mc in 10 minutes, semi-automatic operation.

Table 64

| Madras, India (13.0°N, 80.2°E) | | | | | | | | |
|--------------------------------|-------|------|------|------|-----|-----|-----|-----------|
| July 1954 | | | | | | | | |
| Time | * | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | | | | | | | | |
| 01 | | | | | | | | |
| 02 | | | | | | | | |
| 03 | | | | | | | | |
| 04 | | | | | | | | |
| 05 | | | | | | | | |
| 06 | 300 | 5.0 | | | | | | 3.1 |
| 07 | 360 | 6.2 | | | | | | 2.85 |
| 08 | 390 | 6.6 | | | | | | 2.7 |
| 09 | 420 | >6.4 | | | | | | 2.55 |
| 10 | 420 | >6.5 | | | | | | 2.5 |
| 11 | 420 | 6.5 | | | | | | 2.5 |
| 12 | 420 | 6.8 | | | | | | 2.5 |
| 13 | 420 | 6.7 | | | | | | 2.55 |
| 14 | 420 | >6.8 | | | | | | 2.55 |
| 15 | 420 | 7.3 | | | | | | 2.6 |
| 16 | 390 | 7.6 | | | | | | 2.65 |
| 17 | 400 | 7.6 | | | | | | 2.6 |
| 18 | 390 | 7.5 | | | | | | 2.7 |
| 19 | 360 | >6.6 | | | | | | 2.8 |
| 20 | (360) | >5.9 | | | | | | (2.85) |
| 21 | --- | --- | | | | | | (2.9) |
| 22 | --- | --- | | | | | | (2.8) |
| 23 | | | | | | | | |

Time: 75.0°E.

Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.

*Height at 0.83 foF2.

**Average values; other columns, median values.

Table 66*

| Singapore, British Malaya (1.3°N, 103.8°E) | | | | | | | | |
|--|------|-------|------|-------|-----|-----|------|-----------|
| July 1954 | | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 275 | 2.8 | | | | | 4.0 | --- |
| 01 | 255 | (2.4) | | | | | 4.4 | --- |
| 02 | 315 | (2.3) | | | | | 4.0 | --- |
| 03 | 265 | 2.0 | | | | | 3.1 | --- |
| 04 | 320 | 1.5 | | | | | 3.1 | --- |
| 05 | --- | (1.8) | | | | | 3.1 | --- |
| 06 | 250 | 2.6 | | | | | 3.5 | (3.2) |
| 07 | 245 | 5.0 | 230 | | 125 | 2.1 | 4.3 | 3.1 |
| 08 | 320 | 6.4 | 220 | 4.0 | 120 | 2.7 | 5.8 | 2.9 |
| 09 | 355 | 7.1 | 210 | 4.1 | 115 | 3.0 | 6.0 | 2.7 |
| 10 | 350 | 8.0 | 205 | 4.2 | 115 | 3.1 | 11.0 | 2.5 |
| 11 | 365 | 8.0 | 205 | 4.3 | 110 | 3.3 | 10.4 | 2.6 |
| 12 | 365 | 7.9 | 200 | 4.3 | 110 | 3.4 | 8.8 | 2.5 |
| 13 | 370 | 7.6 | 200 | 4.3 | 110 | 3.3 | 7.2 | 2.6 |
| 14 | 370 | 7.7 | 200 | 4.2 | 115 | 3.2 | 6.4 | 2.6 |
| 15 | 345 | 7.7 | 205 | 4.1 | 115 | 3.0 | 5.0 | 2.6 |
| 16 | 310 | 7.8 | 225 | 3.9 | 120 | 2.7 | 5.2 | 2.9 |
| 17 | 260 | 7.4 | 230 | (3.7) | 120 | 2.2 | 5.5 | 3.0 |
| 18 | 240 | 7.0 | | | | 1.9 | 4.2 | 3.2 |
| 19 | 240 | 6.3 | | | | | 4.3 | 3.1 |
| 20 | 245 | 6.0 | | | | | 4.4 | 3.3 |
| 21 | 230 | 4.8 | | | | | 4.6 | 3.4 |
| 22 | 215 | 3.0 | | | | | 4.0 | (3.5) |
| 23 | 245 | 2.7 | | | | | 4.2 | (3.2) |

Time: 105.0°E.

Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.

*Average values except foF2 and fEs, which are median values.

Table 67

| Townsville, Australia (19.3°S, 146.7°E) | | | | | | | |
|---|------|-------|------|------|-----|-----|---------------|
| July 1954 | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 250 | (3.0) | | | | 2.0 | (3.3) |
| 01 | 240 | (3.0) | | | | 2.1 | (3.2) |
| 02 | 250 | (2.8) | | | | 3.0 | (3.4) |
| 03 | 230 | (2.7) | | | | 3.1 | (3.5) |
| 04 | 240 | (2.2) | | | | 3.0 | (3.55) |
| 05 | 250 | 2.0 | | | | 3.0 | 3.2 |
| 06 | 250 | 2.3 | | | | 2.8 | 3.2 |
| 07 | 240 | 3.9 | | | --- | E | 3.1 |
| 08 | 240 | 5.0 | 250 | --- | 120 | 2.1 | 3.3 |
| 09 | 260 | 5.1 | 230 | 3.8 | 110 | 2.5 | 3.5 |
| 10 | 280 | 5.3 | 230 | 4.0 | 100 | 2.9 | 3.7 |
| 11 | 300 | 5.3 | 200 | 4.0 | 110 | 3.0 | 3.8 |
| 12 | 270 | 5.4 | 210 | 4.0 | 100 | 3.0 | 3.8 |
| 13 | 280 | 5.2 | 200 | 4.0 | 120 | 3.0 | 3.8 |
| 14 | 290 | 5.3 | 200 | 4.0 | 120 | 3.0 | 3.8 |
| 15 | 290 | 5.0 | 200 | 3.9 | 110 | 2.9 | 3.8 |
| 16 | 260 | 5.0 | 230 | 3.5 | 110 | 2.5 | 4.0 |
| 17 | 240 | 5.0 | --- | --- | 120 | 2.0 | 4.0 |
| 18 | 230 | 4.2 | | | | 4.0 | 3.5 |
| 19 | 230 | 3.5 | | | | 3.6 | 3.4 |
| 20 | 240 | 3.0 | | | | 3.4 | 3.2 |
| 21 | 260 | 2.9 | | | | 3.2 | 3.0 |
| 22 | 260 | 3.0 | | | | 2.6 | 3.0 |
| 23 | 260 | 3.0 | | | | 2.3 | (3.2) |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 69

| Brisbane, Australia (27.5°S, 153.0°E) | | | | | | | |
|---------------------------------------|------|------|------|------|-----|------|---------------|
| July 1954 | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 240 | 3.3 | | | | | 3.3 |
| 01 | 250 | 3.3 | | | | | 3.3 |
| 02 | 250 | 3.5 | | | | 1.9 | 3.2 |
| 03 | 250 | 3.5 | | | | 2.1 | 3.3 |
| 04 | 230 | 3.3 | | | | 2.0 | 3.5 |
| 05 | 230 | 3.2 | | | | 2.2 | 3.4 |
| 06 | 240 | 2.6 | | | | 2.0 | 3.3 |
| 07 | 230 | 4.1 | | | 150 | 1.9 | 3.7 |
| 08 | 240 | 4.5 | 240 | --- | 120 | 2.1 | 3.6 |
| 09 | 270 | 5.0 | 240 | 3.9 | 110 | 2.7 | 3.5 |
| 10 | 270 | 5.2 | 230 | 4.0 | 110 | 2.9 | 3.5 |
| 11 | 290 | 5.1 | 220 | 4.0 | 100 | 3.0 | 4.0 |
| 12 | 290 | 5.2 | 200 | 4.0 | 100 | 3.0 | 4.1 |
| 13 | 290 | 5.0 | 210 | 4.0 | 100 | 3.0 | 4.2 |
| 14 | 300 | 4.8 | 200 | 3.9 | 100 | 2.9 | 4.2 |
| 15 | 260 | 5.4 | 210 | 3.7 | 120 | 2.6 | 4.2 |
| 16 | 240 | 4.9 | 220 | --- | 120 | 2.2 | 3.6 |
| 17 | 230 | 4.4 | | | --- | <1.8 | 4.2 |
| 18 | 230 | 3.8 | | | | | 3.2 |
| 19 | 230 | 3.2 | | | | | 3.4 |
| 20 | 250 | 3.2 | | | | | 3.2 |
| 21 | 250 | 3.4 | | | | | 3.2 |
| 22 | 250 | 3.4 | | | | | 3.2 |
| 23 | 240 | 3.3 | | | | | 3.35 |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 71

| Hobart, Tasmania (42.9°S, 147.3°E) | | | | | | | |
|------------------------------------|------|------|------|------|-----|-----|---------------|
| July 1954 | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 250 | 2.0 | | | | | 3.1 |
| 01 | 250 | 2.0 | | | | | 3.0 |
| 02 | 250 | 2.1 | | | | | 3.05 |
| 03 | 250 | 2.0 | | | | | 3.0 |
| 04 | 250 | 2.0 | | | | | 3.0 |
| 05 | 250 | 2.0 | | | | | 3.1 |
| 06 | 250 | 2.0 | | | | | 3.1 |
| 07 | 250 | 2.0 | | | | | 3.1 |
| 08 | 220 | 3.3 | | | 120 | 1.6 | 3.2 |
| 09 | 210 | 3.8 | | | 100 | 2.0 | 3.2 |
| 10 | 200 | 4.3 | | | 100 | 2.4 | 3.2 |
| 11 | 200 | 4.5 | --- | --- | 100 | 2.5 | 3.3 |
| 12 | 210 | 4.8 | 200 | 3.8 | 100 | 2.6 | 3.6 |
| 13 | 200 | 5.0 | --- | --- | 100 | 2.5 | 3.8 |
| 14 | 200 | 5.0 | --- | --- | 100 | 2.4 | 3.5 |
| 15 | 200 | 4.7 | | | 100 | 2.1 | 2.8 |
| 16 | 200 | 4.5 | | | 100 | 1.9 | 2.5 |
| 17 | 220 | 3.8 | | | | | 3.1 |
| 18 | 230 | 3.0 | | | | | 3.1 |
| 19 | 250 | 2.3 | | | | | 3.1 |
| 20 | 250 | 2.2 | | | | | 3.2 |
| 21 | 250 | 2.0 | | | | | 3.2 |
| 22 | 250 | 2.0 | | | | | 3.1 |
| 23 | 250 | 2.0 | | | | | 3.1 |

Time: 150.0°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 68

| Sao Paulo, Brazil (23.5°S, 46.5°W) | | | | | | | |
|------------------------------------|------|------|------|------|-----|-----|---------------|
| July 1954 | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 240 | 2.8 | | | | | 3.5 |
| 01 | 240 | 2.7 | | | | | 3.4 |
| 02 | 220 | 3.1 | | | | | 3.7 |
| 03 | 210 | 2.5 | | | | | 3.7 |
| 04 | 300 | 1.9 | | | | | (3.5) |
| 05 | --- | E | | | | | (3.4) |
| 06 | --- | E | | | | | --- |
| 07 | 200 | 3.8 | | | | | 3.9 |
| 08 | 210 | 4.5 | 200 | --- | 105 | 2.2 | 3.9 |
| 09 | 280 | 5.0 | 200 | 3.9 | 100 | 2.6 | 3.6 |
| 10 | 280 | 5.8 | 200 | 4.0 | 100 | 2.8 | 3.5 |
| 11 | 270 | 6.5 | 180 | 4.1 | 100 | 3.0 | 3.6 |
| 12 | 270 | 6.7 | 180 | 4.1 | 100 | 3.0 | 3.5 |
| 13 | 270 | 7.4 | 180 | 4.1 | 100 | 3.1 | 3.4 |
| 14 | 260 | 7.8 | 190 | 4.0 | 100 | 2.9 | 3.6 |
| 15 | 250 | 7.3 | 200 | 3.8 | 100 | 2.7 | 3.5 |
| 16 | 230 | 7.6 | 200 | --- | 100 | 2.4 | 3.6 |
| 17 | 200 | 7.5 | | | --- | --- | 3.2 |
| 18 | 180 | 6.5 | | | | | 3.2 |
| 19 | 180 | 4.0 | | | | | 2.9 |
| 20 | 200 | 3.1 | | | | | 3.4 |
| 21 | 220 | 3.0 | | | | | 3.55 |
| 22 | 220 | 3.2 | | | | | 3.5 |
| 23 | 220 | 2.8 | | | | | 3.6 |

Time: Local.

Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 70

| Canberra, Australia (35.3°S, 149.0°E) | | | | | | | |
|---------------------------------------|-------|-------|------|-------|-----|-----|---------------|
| July 1954 | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | --- | 3.1 | | | | | 3.1 |
| 01 | <250 | (3.1) | | | | | 3.2 |
| 02 | (250) | 3.3 | | | | | 3.1 |
| 03 | <250 | (3.3) | | | | | 3.1 |
| 04 | (240) | (3.3) | | | | | 2.8 |
| 05 | <220 | (3.0) | | | | | 3.1 |
| 06 | --- | (2.4) | | | | | 3.2 |
| 07 | --- | 2.9 | | | | | 3.3 |
| 08 | 230 | 4.0 | | | --- | 1.9 | 3.6 |
| 09 | 260 | 4.5 | 240 | 3.5 | 110 | 2.2 | 3.5 |
| 10 | 270 | 4.6 | 240 | 3.8 | 110 | 2.7 | 3.5 |
| 11 | 290 | 4.7 | 220 | 3.9 | 110 | 2.8 | 3.4 |
| 12 | 290 | 4.7 | 220 | 4.0 | 110 | 2.8 | 3.6 |
| 13 | 290 | 4.9 | 210 | 3.9 | 110 | 2.7 | 4.1 |
| 14 | 270 | 5.2 | 220 | 3.8 | 110 | 2.6 | 4.4 |
| 15 | 260 | 5.0 | 220 | 3.6 | 120 | 2.4 | 3.8 |
| 16 | 240 | 4.8 | 225 | (3.0) | --- | 2.1 | 3.3 |
| 17 | 230 | 4.3 | | | | | 3.0 |
| 18 | --- | 3.5 | | | | | 3.1 |
| 19 | --- | 3.0 | | | | | (2.8) |
| 20 | --- | (2.9) | | | | | (2.0) |
| 21 | --- | (3.2) | | | | | 3.2 |
| 22 | --- | (3.0) | | | | | (3.1) |
| 23 | --- | (3.0) | | | | | (3.2) |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 72^a

| Falkland Is. (51.7°S, 57.8°W) | | | | | | | |
|-------------------------------|------|------|------|------|-----|-----|---------------|
| June 1954 | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 285 | 2.4 | | | | | 2.9 |
| 01 | 280 | 2.3 | | | | | 3.0 |
| 02 | 275 | 2.3 | | | | | 2.4 |
| 03 | 265 | 2.3 | | | | | 3.2 |
| 04 | 260 | 2.2 | | | | | 3.1 |
| 05 | 240 | 2.2 | | | | | 3.2 |
| 06 | 230 | 2.1 | | | | | 3.4 |
| 07 | 235 | 1.9 | | | | | 3.3 |
| 08 | 215 | 3.3 | | | 160 | 1.6 | 2.6 |
| 09 | 210 | 3.8 | | | 135 | 1.8 | 3.1 |
| 10 | 215 | 4.2 | | | 120 | 2.1 | 3.4 |
| 11 | 220 | 4.4 | | | 115 | 2.3 | 4.0 |
| 12 | 230 | 4.5 | 215 | | 115 | 2.4 | 3.6 |
| 13 | 220 | 4.8 | | | 120 | 2.3 | 3.4 |
| 14 | 225 | 4.4 | 225 | | 125 | 2.0 | 3.0 |
| 15 | 220 | 4.6 | | | 155 | 1.9 | 2.3 |
| 16 | 215 | 3.5 | | | | | 2.0 |
| 17 | 235 | 2.4 | | | | | 2.8 |
| 18 | 250 | 2.3 | | | | | 2.5 |
| 19 | 245 | 2.3 | | | | | 3.3 |
| 20 | 245 | 2.4 | | | | | 3.3 |
| 21 | 250 | 2.2 | | | | | 2.5 |
| 22 | 260 | 2.4 | | | | | 2.2 |
| 23 | 280 | 2.4 | | | | | 1.8 |

Time: 60.0°W.

Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.

^aAverage values except foF2 and fEs, which are median values.

Table 73

| Macquarie I. (54.5°S, 159.0°E) | | | | | | | |
|--------------------------------|-------|-------|------|------|-----|-----|---------------|
| January 1953 | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | (270) | (4.1) | | | | | 4.5 2.95 |
| 01 | --- | (4.0) | | | | | 4.4 (2.9) |
| 02 | (300) | 3.5 | | | | | 4.2 (3.1) |
| 03 | 300 | 3.1 | | | | | 3.5 2.9 |
| 04 | 270 | 3.4 | | | | | 3.1 3.2 |
| 05 | 280 | 3.7 | 250 | 3.6 | 100 | 2.2 | 3.2 |
| 06 | 350 | 4.0 | 230 | 3.8 | 100 | 2.5 | 3.3 3.1 |
| 07 | 350 | 4.4 | 220 | 4.0 | 100 | 2.8 | 2.9 |
| 08 | 450 | 4.5 | 200 | 4.1 | 100 | 3.0 | 3.3 2.6 |
| 09 | 390 | 4.6 | 200 | 4.2 | 100 | 3.1 | 3.5 2.9 |
| 10 | 360 | 5.2 | 200 | 4.3 | 100 | 3.1 | 4.0 2.9 |
| 11 | 350 | 5.2 | 200 | 4.3 | 100 | 3.2 | 4.0 3.0 |
| 12 | 360 | 5.0 | 200 | 4.3 | 100 | 3.2 | 3.6 3.0 |
| 13 | 370 | 5.1 | 200 | 4.3 | 100 | 3.2 | 3.6 2.9 |
| 14 | 370 | 5.1 | 200 | 4.3 | 100 | 3.2 | 3.0 |
| 15 | 360 | 5.2 | 200 | 4.2 | 100 | 3.0 | 2.9 |
| 16 | 340 | 5.4 | 200 | 4.1 | 100 | 3.0 | 3.4 3.0 |
| 17 | 320 | 5.4 | 210 | 4.0 | 100 | 2.6 | 4.0 3.0 |
| 18 | 300 | 5.4 | 220 | 3.6 | 100 | 2.5 | 4.3 3.1 |
| 19 | 280 | 5.0 | 240 | 3.4 | 100 | 2.0 | 4.0 3.1 |
| 20 | 280 | 4.5 | | | | | 4.1 3.1 |
| 21 | 290 | 5.0 | | | | | 4.4 3.1 |
| 22 | 290 | 4.2 | | | | | 4.5 3.05 |
| 23 | (260) | (4.2) | | | | | 4.5 3.05 |

Time: 157.5°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 74

| Macquarie I. (54.5°S, 159.0°E) | | | | | | | |
|--------------------------------|-------|------|------|------|-----|-----|---------------|
| December 1952 | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 280 | 3.8 | | | | | 4.3 2.8 |
| 01 | 300 | 3.5 | | | | | 4.1 3.0 |
| 02 | 270 | 3.4 | | | | | 3.5 3.0 |
| 03 | 300 | 3.2 | | | | | 3.0 3.0 |
| 04 | 260 | 3.5 | | | | | 2.8 3.1 |
| 05 | 300 | 3.9 | 250 | 3.5 | 100 | 2.1 | 2.4 3.0 |
| 06 | 480 | 4.1 | 240 | 3.8 | 100 | 2.6 | 2.7 |
| 07 | 430 | 4.6 | 220 | 4.0 | 100 | 2.8 | 2.8 |
| 08 | 400 | 4.9 | 220 | 4.2 | 100 | 3.0 | 3.6 2.7 |
| 09 | 380 | 5.0 | 200 | 4.3 | 100 | 3.1 | 2.9 |
| 10 | 390 | 5.2 | 200 | 4.4 | 100 | 3.3 | 2.8 |
| 11 | 360 | 5.7 | 200 | 4.5 | 100 | 3.3 | 3.6 2.9 |
| 12 | 360 | 5.8 | 200 | 4.5 | 100 | 3.3 | 3.7 3.0 |
| 13 | 340 | 5.8 | 200 | 4.4 | 100 | 3.3 | 2.95 |
| 14 | 340 | 5.8 | 200 | 4.4 | 100 | 3.2 | 2.95 |
| 15 | 340 | 5.8 | 200 | 4.3 | 100 | 3.0 | 2.9 |
| 16 | 300 | 5.8 | 200 | 4.1 | 100 | 3.0 | 3.0 |
| 17 | 300 | 5.8 | 220 | 4.0 | 100 | 2.8 | 3.6 3.0 |
| 18 | 290 | 5.8 | 240 | 3.6 | 100 | 2.4 | 4.1 3.05 |
| 19 | 300 | 5.0 | 260 | 3.2 | 110 | 2.0 | 3.8 2.9 |
| 20 | 250 | 4.7 | | | | | 4.4 3.0 |
| 21 | 260 | 4.6 | | | | | 4.0 3.0 |
| 22 | (260) | 4.4 | | | | | 4.4 (3.0) |
| 23 | 280 | 4.2 | | | | | 3.5 2.95 |

Time: 157.5°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 75

| Macquarie I. (54.5°S, 159.0°E) | | | | | | | |
|--------------------------------|------|------|------|------|-----|-----|---------------|
| November 1952 | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | 300 | 3.1 | | | | | 4.0 2.9 |
| 01 | 300 | 2.8 | | | | | 3.2 2.9 |
| 02 | 280 | 2.7 | | | | | 3.3 3.0 |
| 03 | 300 | 2.7 | | | | | 3.2 3.0 |
| 04 | 260 | 3.3 | | | | | 3.2 |
| 05 | 250 | 3.8 | | | 100 | 2.3 | 3.2 |
| 06 | 330 | 4.2 | 240 | 3.8 | 100 | 2.6 | 3.05 |
| 07 | 350 | 4.5 | 220 | 4.0 | 100 | 2.7 | 3.0 |
| 08 | 350 | 4.9 | 210 | 4.2 | 100 | 3.0 | 3.0 |
| 09 | 360 | 5.2 | 200 | 4.3 | 100 | 3.1 | 3.0 |
| 10 | 360 | 5.4 | 200 | 4.3 | 100 | 3.2 | 3.5 2.95 |
| 11 | 350 | 5.5 | 200 | 4.4 | 100 | 3.2 | 3.5 3.0 |
| 12 | 320 | 5.7 | 200 | 4.4 | 100 | 3.2 | 3.6 3.0 |
| 13 | 340 | 5.6 | 200 | 4.4 | 100 | 3.2 | 3.0 |
| 14 | 340 | 5.6 | 200 | 4.3 | 100 | 3.1 | 3.05 |
| 15 | 300 | 5.6 | 200 | 4.2 | 100 | 3.0 | 3.1 |
| 16 | 300 | 5.6 | 220 | 4.0 | 100 | 2.8 | 3.1 |
| 17 | 300 | 5.6 | 230 | 3.7 | 100 | 2.6 | 3.2 3.1 |
| 18 | 270 | 5.5 | 240 | 3.5 | --- | 2.3 | 3.1 3.2 |
| 19 | 260 | 4.9 | | | | | 3.5 3.2 |
| 20 | 280 | 4.7 | | | | | 4.2 3.05 |
| 21 | 300 | 4.5 | | | | | 3.9 3.0 |
| 22 | 280 | 4.2 | | | | | 4.2 3.0 |
| 23 | 300 | 3.5 | | | | | 4.0 2.9 |

Time: 157.5°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 76

| Macquarie I. (54.5°S, 159.0°E) | | | | | | | |
|--------------------------------|-------|-------|------|------|-----|-----|---------------|
| October 1952 | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | --- | 2.6 | | | | | 4.3 (2.8) |
| 01 | --- | (2.6) | | | | | 4.1 --- |
| 02 | --- | 2.3 | | | | | 3.8 --- |
| 03 | (300) | 2.0 | | | | | 2.8 (2.85) |
| 04 | (280) | 2.3 | | | | | 2.0 2.9 |
| 05 | 250 | 3.2 | | | 120 | 1.7 | 3.2 |
| 06 | 250 | <3.6 | | | 100 | 2.0 | 3.2 |
| 07 | 0 | <3.8 | 230 | 3.8 | 100 | 2.5 | 2.8 |
| 08 | 500 | 4.2 | 220 | 3.8 | 100 | 2.8 | 2.7 |
| 09 | 440 | 4.5 | 200 | 4.0 | 100 | 3.0 | 2.8 |
| 10 | 450 | 4.5 | 200 | 4.0 | 100 | 3.0 | 2.75 |
| 11 | 400 | 4.7 | 200 | 4.2 | 100 | 3.0 | 2.8 |
| 12 | 390 | 4.8 | 200 | 4.2 | 100 | 3.0 | 2.9 |
| 13 | 380 | 4.8 | 200 | 4.2 | 100 | 3.0 | 2.9 |
| 14 | 370 | 5.0 | 200 | 4.0 | 100 | 3.0 | 2.9 |
| 15 | 350 | 4.8 | 220 | 4.0 | 100 | 2.8 | 2.95 |
| 16 | 330 | 5.0 | 230 | 3.7 | 110 | 2.6 | 3.0 |
| 17 | 300 | 4.7 | 230 | 3.5 | --- | 2.4 | 3.1 |
| 18 | 250 | 4.6 | | | | | 3.1 |
| 19 | 250 | 4.2 | | | | | 2.4 3.0 |
| 20 | 270 | 3.7 | | | | | 3.8 2.9 |
| 21 | (270) | 3.6 | | | | | 4.0 2.9 |
| 22 | --- | 3.2 | | | | | 4.3 --- |
| 23 | --- | 2.6 | | | | | 4.5 (2.9) |

Time: 157.5°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 77

| Macquarie I. (54.5°S, 159.0°E) | | | | | | | |
|--------------------------------|-------|-------|------|------|-----|-----|---------------|
| September 1952* | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | --- | (2.9) | | | | | 4.2 --- |
| 01 | (290) | (2.4) | | | | | 2.2 (2.9) |
| 02 | (320) | (2.0) | | | | | 2.8 (3.0) |
| 03 | --- | (1.8) | | | | | 3.4 --- |
| 04 | (300) | (2.3) | | | | | 2.2 (3.0) |
| 05 | 290 | 2.0 | | | | | 2.9 |
| 06 | 250 | 3.2 | | | | | 3.2 |
| 07 | 250 | 3.9 | | | 100 | 2.2 | 3.3 |
| 08 | 310 | 4.5 | 230 | 3.7 | 100 | 2.5 | 3.2 |
| 09 | 330 | 4.6 | 200 | 4.0 | 100 | 2.6 | 2.9 |
| 10 | 360 | 5.2 | 220 | 4.0 | 100 | 2.9 | 2.9 |
| 11 | 350 | 5.3 | 200 | 4.0 | 100 | 3.0 | 3.0 |
| 12 | 350 | 5.2 | 220 | 4.0 | 100 | 3.0 | 2.9 |
| 13 | 320 | 5.4 | 210 | 4.0 | 100 | 3.0 | 3.1 |
| 14 | 300 | (5.5) | 200 | 4.0 | 100 | 2.8 | 3.2 |
| 15 | 270 | (5.3) | 200 | 3.7 | 100 | 2.5 | 3.2 |
| 16 | 260 | (5.5) | 220 | 3.6 | 100 | 2.3 | 3.25 |
| 17 | 240 | 5.2 | | | 110 | 1.8 | 3.25 |
| 18 | --- | --- | | | | | --- |
| 19 | (240) | (3.2) | | | | | (3.0) |
| 20 | (240) | (3.0) | | | | | (2.9) |
| 21 | --- | (2.7) | | | | | 3.5 (4.0) |
| 22 | --- | (2.8) | | | | | 4.0 --- |
| 23 | (300) | (3.0) | | | | | 4.0 (2.9) |

Time: 157.5°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

*No record, 9th through 15th, inclusive, except foE, which had no record, 8th through 15th, inclusive.

Table 78

| Macquarie I. (54.5°S, 159.0°E) | | | | | | | |
|--------------------------------|-------|-------|------|------|-----|-----|---------------|
| August 1952* | | | | | | | |
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs (M3000)F2 |
| 00 | (320) | (2.6) | | | | | 3.5 (2.9) |
| 01 | --- | (2.0) | | | | | 3.1 (3.0) |
| 02 | --- | (2.0) | | | | | 2.8 (2.9) |
| 03 | --- | (2.2) | | | | | 2.6 --- |
| 04 | --- | (2.0) | | | | | (2.4) --- |
| 05 | --- | (1.8) | | | | | (1.8) --- |
| 06 | --- | (1.6) | | | | | (1.8) (3.0) |
| 07 | (240) | (3.0) | | | --- | --- | (3.2) |
| 08 | (240) | (3.7) | --- | --- | 110 | 2.0 | (3.5) |
| 09 | (240) | (4.2) | --- | --- | 100 | 2.1 | (3.5) |
| 10 | (280) | (4.4) | 200 | 3.7 | 100 | 2.4 | (3.4) |
| 11 | 280 | 4.8 | 210 | 3.8 | 100 | 2.6 | 3.35 |
| 12 | 270 | 5.1 | 230 | 4.0 | 100 | 2.7 | 3.4 |
| 13 | 270 | 5.2 | 220 | 3.9 | 100 | 2.7 | 3.35 |
| 14 | (270) | (5.3) | 220 | 3.7 | 100 | 2.5 | (3.4) |
| 15 | (270) | (5.1) | 220 | 3.5 | 100 | 2.4 | (3.3) |
| 16 | (240) | (5.1) | --- | --- | 110 | 2.0 | (3.3) |
| 17 | (240) | (4.7) | | | --- | --- | (3.3) |
| 18 | --- | --- | | | | | --- |
| 19 | --- | --- | | | | | (3.0) --- |
| 20 | (250) | (3.0) | | | | | 3.0 (3.0) |
| 21 | (270) | (2.6) | | | | | 2.8 (3.0) |
| 22 | (280) | (2.1) | | | | | 3.5 (2.9) |
| 23 | --- | --- | | | | | 3.5 --- |

Time: 157.5°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

*foF2, fEs, h'F2, and (M3000)F2, no record 1st through 10th, inclusive; foF1, foE, h'F1, and h'E, no record 1st through 11th, inclusive.

hF2 _____ Km _____ March _____ 1955
(Characteristic) (Unit) (Month)
Observed at _____ Washington, D.C.

IONOSPHERIC DATA

National Bureau of Standards
(Institution)
Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

Calculated by: E.J.W., J.W.P., L.F.M., J.J.S.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1 | S | S | S | S | S | (260) ^S | 230 | 230 | 230 | 240 | 280 | 260 | 320 | 280 | 270 | 270 | 260 | 230 | 220 | 210 | 220 | 240 | 270 | (270) ^S |
| 2 | 2.80 | (280) ^S | 2.90 | 2.80 | 2.70 | 2.50 | 2.20 | 2.30 | 2.30 | 2.50 | 2.80 | 300 ^M | 2.80 | 2.60 | 2.80 | 2.60 | 2.60 | 2.40 | 2.30 | 2.20 | 2.30 | 2.40 | 2.50 | 2.60 |
| 3 | 2.70 | (280) ^S | 2.70 | 2.70 | 2.50 | 2.40 | 2.20 | 2.20 | 2.20 | 2.40 | 2.50 | 2.70 | 2.50 | 2.90 | 2.60 | 2.50 | 2.50 | (240) ^L | 2.20 | 2.10 | (230) ^S | (250) ^S | (270) ^S | (270) ^S |
| 4 | (250) ^S | (270) ^S | (280) ^S | 2.70 | 2.60 | 2.60 | 2.60 | 2.30 | 2.20 | 2.40 | 2.40 | 2.70 | 300 | 2.90 | 2.70 | 310 | (280) ^L | (250) ^L | 2.20 | 2.20 | 2.30 | 2.40 | 2.50 | 2.40 |
| 5 | 2.40 | 2.70 | 2.80 | 2.50 | 2.60 | 2.70 | (270) ^S | (250) ^L | 2.80 | 300 | 310 | 4.40 | 3.80 | 3.50 | (360) ^L | 300 | 2.80 | 2.40 | 2.50 | 2.30 | 2.50 | 2.50 ^F | 2.40 | 2.50 |
| 6 | (260) ^S | (270) ^S | (280) ^S | (260) ^S | 2.50 | (270) ^S | (310) ^S | 2.50 | (290) ^L | M | G | 3.90 | 4.20 | 3.30 | 300 | 330 ^M | 2.80 | 2.50 | 2.30 | 2.40 | 2.40 | 2.60 | 2.50 | 2.80 |
| 7 | 2.80 | 2.90 | 2.80 | 2.50 | 2.50 | 2.60 | 2.50 | 2.40 | 2.60 | 2.70 | 300 | 2.70 | 320 | 330 | 330 | 290 | 350 | 2.50 | (240) ^H | 2.30 | 2.50 | (270) ^S | (260) ^S | |
| 8 | (260) ^S | (290) ^S | (270) ^S | (260) ^S | 2.60 | 2.60 | (260) ^S | 2.60 | 2.60 | 2.70 | 300 | 330 | 360 | 330 | 310 | 300 | 2.80 | 2.50 | 2.30 | 2.30 | 2.40 | 2.50 | 2.80 | (270) ^S |
| 9 | 2.80 | 2.90 | (290) ^S | 2.90 | 2.70 | 2.60 | 2.70 | 2.50 | (300) ^L | 300 | 310 | 340 | 350 | 330 | 310 | 320 | 300 | 2.80 | 2.30 | 2.40 | 2.50 | 2.50 | (290) ^S | (320) ^S |
| 10 | (310) ^S | (310) ^S | H | H | (320) ^S | 300 | (290) ^S | 2.50 | (290) ^L | 300 | 310 | 310 | 300 | 300 | 300 | 310 | 2.90 | 2.50 | 2.50 | 2.30 | 2.30 | 2.20 | C | C |
| 11 | 2.80 | (290) ^S | (300) ^S | (280) ^S | (270) ^S | (280) ^S | 2.40 | 3.30 | 330 | L | G | G | G | 4.60 ^K | 3.60 ^K | 350 ^K | 260 ^K | 270 | 240 ^K | 240 ^K | 250 ^K | 300 ^K | (300) ^K | (300) ^K |
| 12 | (320) ^K | (300) ^K | (290) ^S | (300) ^S | 2.80 | (270) ^S | (290) ^S | 2.40 | (300) ^L | 300 | 320 | 320 | 320 | 340 | 320 | 310 ^M | 270 | 270 | 230 | 230 | 230 | 250 | (260) ^S | (270) ^S |
| 13 | (320) ^H | (320) ^S | (280) ^S | (280) ^S | 2.80 | 2.60 | 2.80 | 2.50 | 270 | 320 | 320 | 330 | 320 | 310 | 280 | 300 | 280 | 250 | 230 | 220 | 230 | 250 | (260) ^S | (270) ^S |
| 14 | (290) ^S | (270) ^S | 2.50 | (240) ^S | 4.40 | (270) ^S | (230) ^S | 2.30 | 270 | 260 ^H | 300 | 2.50 | 2.90 | 310 | 310 | 310 | 300 | 2.80 | 230 | 230 | 230 | 250 | (250) ^S | (280) ^S |
| 15 | (270) ^S | (280) ^S | (270) ^S | (270) ^S | (270) ^S | (320) ^S | 2.80 | 2.40 | (240) ^L | 330 | 420 | G | G | 3.80 ^K | 400 ^K | 380 ^K | 330 ^K | (270) ^K | 2.50 ^K | 2.30 ^K | 2.30 ^K | 2.60 ^K | (280) ^K | (280) ^K |
| 16 | (300) ^K | S | S | S | S | S | (280) ^K | 2.20 ^K | G | G | G | 370 ^K | (400) ^S | 4.20 ^K | 4.60 ^S | 340 ^K | 350 ^K | 290 ^K | 240 ^K | 240 ^K | 250 ^K | (250) ^K | (280) ^K | (280) ^K |
| 17 | (290) ^K | S | S | S | S | S | (280) ^K | (270) ^L | L | L | G | G | 4.60 ^K | 4.50 ^K | 3.80 ^K | 360 ^K | 320 ^K | (270) ^L | 230 ^K | 230 ^K | (240) ^S | (270) ^S | S | S |
| 18 | S | S | S | (320) | (300) | (290) ^S | 2.60 | 2.30 | (260) ^L | 370 | 330 | 330 | 340 | 400 | 330 | 350 | 300 | 250 | 230 | 220 | 240 | (270) ^S | (280) ^S | (280) ^S |
| 19 | S | S | S | 2.70 | S | S | (250) ^S | 2.40 | (260) ^L | 2.70 | 2.90 ^H | (300) ^L | 3.70 ^F | 300 ^H | 300 | 280 | 270 | 250 | 220 | 220 | 230 | (280) ^S | (280) ^S | (280) ^S |
| 20 | (270) ^S | (270) ^S | (280) ^S | 2.50 | 2.40 | 2.60 | 2.40 | 2.30 | 240 | 250 | 270 | 270 | 300 | 300 | 280 | 280 | 250 | (240) ^L | 230 | 230 | 230 | 220 | (250) ^S | (250) ^S |
| 21 | (270) ^S | (280) ^S | (270) ^S | (290) ^S | 2.70 | (250) ^S | (230) ^S | 2.50 | 2.50 | 2.90 | 2.50 | 300 | 2.90 | 300 | 2.80 | 2.80 | 260 | 250 | 230 | 210 | 220 | (240) ^S | 240 | 240 |
| 22 | (270) ^S | (270) ^S | (280) ^S | (280) ^S | (270) ^S | (280) ^S | (240) ^S | (430) ^L | 360 | (570) ^S | G | G | G | G | G | G | G | (330) ^L | 270 ^K | (260) ^H | (250) ^S | 2.80 ^K | (280) ^K | (280) ^K |
| 23 | S | K | S | 300 | (300) ^S | 300 | 2.60 | 2.50 | (350) ^H | 330 | 300 | 350 | 340 | 3.90 | 310 | 360 | 320 | 260 | 240 | 230 | 230 | (230) ^H | (290) ^H | (270) ^S |
| 24 | (300) ^S | (280) ^S | (300) ^S | 2.50 | (300) ^S | (340) ^S | 2.80 | 2.40 | 380 | 430 | 460 | (680) ^S | 5.60 ^K | 3.90 ^K | 350 ^K | 370 ^K | 320 ^K | (270) ^L | 220 ^K | 230 ^K | 240 ^K | 240 ^K | 250 ^K | (280) ^K |
| 25 | S | K | S | S | S | S | 2.40 | 2.20 | 220 | 240 | 300 | 300 | 300 | 340 | 290 | 280 | 2.80 | (250) ^L | 230 | 230 | 240 | 250 | 270 | (270) ^S |
| 26 | (280) ^S | (290) ^S | (290) ^S | (280) ^S | (280) ^S | (310) ^S | 2.50 | (320) ^L | 2.80 | (390) ^S | 5.20 ^H | G | 4.40 ^H | 3.80 ^K | 410 ^K | 350 ^K | 310 ^K | 2.80 ^K | 230 ^K | 240 ^K | 260 ^K | (270) ^K | (280) ^K | (280) ^K |
| 27 | (270) ^K | (270) ^S | (290) ^S | (280) ^S | (270) ^S | (290) ^S | 2.20 | (250) ^L | (380) ^S | 330 | 360 | 440 | 3.60 | 310 | 400 | 330 | 300 | 290 | 240 | 230 | 240 | 260 | 280 | 290 |
| 28 | (270) ^S | (280) ^S | (280) ^S | (270) ^S | (280) ^S | (280) ^S | 2.30 | 2.70 | 270 | (410) ^L | 320 | 320 | 2.90 | 340 | 320 | 300 | 290 | 260 | 240 | 230 | 230 | 250 | 250 | (290) ^S |
| 29 | (270) ^S | (290) ^S | 300 | 2.80 | 2.80 | (290) ^S | 2.40 | 2.70 | (300) ^L | 2.80 | 300 | 330 | 320 | 320 | 330 | 2.80 ^H | 2.90 | 2.60 | 230 | 220 | 210 | 230 | 250 | (270) ^S |
| 30 | (270) ^S | 2.80 | (280) ^S | (280) ^S | 2.80 | 2.70 | 2.40 | (250) ^L | 260 | 2.80 | 300 | 330 | 320 | 310 | 300 | 370 | 2.80 | 2.70 | 2.40 | 230 | 230 | 240 ^K | 240 ^K | 280 ^K |
| 31 | (290) ^K | 2.70 ^K | (280) ^K | (340) ^K | S | S | 300 ^K | 2.40 ^K | G | (370) ^K | G | G | G | G | G | (510) ^S | (370) ^K | (380) ^K | (290) ^L | 250 ^K | (270) ^K | (300) ^K | (290) ^K | (290) ^K |
| Median | (280) | (280) | (280) | (280) | 2.70 | (270) | 2.50 | 2.50 | 270 | 300 | 310 | 330 | 320 | 330 | 320 | 310 | 290 | 260 | 230 | 230 | 250 | 270 | (280) | (280) |
| Count | 26 | 24 | 25 | 26 | 25 | 26 | 31 | 31 | 30 | 28 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 29 | 29 | 29 |

Sweep 11.0 Mc to 25.0 Mc in 0.225 min
Manual ☐ Automatic ☒

NBS-D-3
Form adopted June 1946TABLE 80
Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

IONOSPHERIC DATA

National Bureau of Standards
(Institution)

Station: E.J.W., JWP., L.F.M., J.J.S.

Calculated by: E.J.W., JWP., L.F.M., J.J.S.

foF₂ (Characteristics) Mc (Month) March 1955

Observed at Washington, D.C.

Lat. 38.7°N, Long. 77.1°W

75°W Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1 | F ^S | F ^S | F ^S | F ^S | F ^S | 12.5 ^F | 12.5 ^F | 41 ^F | 53 | 53 | 55 ^H | 53 | 57 | 64 | 59 | 57 | 60 | 58 ^H | 61 | 48 | 34 | 31 | 26 | (2.5) ^S |
| 2 | 2.4 ^F | 2.4 ^F | 2.5 ^F | 2.9 | 3.1 | 3.0 | 3.0 | 4.2 | 4.9 | 5.0 | 5.5 | 5.6 ^H | 6.4 | 6.0 | 6.3 | 6.0 | 5.6 | 5.4 | 5.6 | 4.5 | 3.8 | 3.3 | 2.9 | (2.7) ^S |
| 3 | 2.7 | 2.6 | 2.8 | 3.1 | 3.2 | 3.0 | 3.2 | 4.8 | 5.2 | 6.2 | 6.3 | 6.4 | 6.6 | 6.0 | 6.4 | 5.8 | 5.8 | 5.7 | 5.8 | 4.7 | 3.3 | 3.0 ^F | 3.0 ^F | 3.0 ^F |
| 4 | (2.8) ^S | (2.5) ^S | (2.6) ^S | 2.9 ^F | 3.0 ^F | 3.0 ^F | 3.1 ^S | 5.0 | 6.2 | 6.4 | 5.8 | 5.9 ^F | 5.7 | 6.3 ^H | 5.8 | 5.8 | 5.7 | 5.7 | 6.4 | (5.2) ^S | 4.8 | 4.7 ^F | 4.3 ^F | 4.2 ^F |
| 5 | 3.5 ^F | 3.2 ^F | 3.1 ^F | 3.3 | 2.7 ^F | 2.4 ^F | 2.2 | 3.7 | 4.4 ^F | 4.5 | 4.8 | 5.1 | 4.8 | 5.1 | 4.7 ^H | 5.2 | 5.1 | (4.4) ^S | 4.8 | 3.7 | 3.7 ^F | 3.7 ^F | (3.4) ^S | (3.1) ^S |
| 6 | (2.7) ^S | 2.6 ^F | (2.6) ^S | 2.6 ^F | 2.3 ^F | (2.0) ^F | 2.1 | 3.3 | 4.0 | M | <4.1 ^G | 4.8 | 4.8 ^H | 5.2 | 5.2 | 5.2 ^H | 5.4 | 5.2 | 4.5 | 4.2 | 3.7 | 3.5 | 3.3 | 2.9 |
| 7 | 3.1 | 2.9 | 2.9 | 2.9 | 2.6 | 2.7 | 2.9 ^F | 3.9 | (5.8) ^S | 4.9 ^F | 5.5 | 5.4 | 5.4 | 5.5 | 5.6 | 5.8 ^F | 5.0 | 5.6 | 4.9 | 4.9 | 3.5 | 3.4 | 3.2 | 3.0 |
| 8 | 2.7 ^F | 2.8 ^F | 3.0 ^F | (2.4) ^F | 2.9 ^F | 2.3 ^F | 2.4 ^F | 3.8 ^F | 4.9 | 5.6 | 5.2 ^F | 5.3 | 5.6 | 5.4 | 5.6 | 5.4 | 5.2 | 5.0 | 5.0 | 4.5 | 3.8 | 3.0 | 2.6 | 2.6 |
| 9 | 2.4 | 2.4 | 2.5 ^S | 2.7 ^F | 2.7 ^F | 2.5 | 2.6 | 3.5 | 4.0 ^F | 4.3 ^F | 4.6 ^F | 4.9 | 5.0 | 5.3 | 5.1 | 5.0 | 5.4 | 4.6 | 4.9 | 4.0 ^F | (3.5) ^F | 3.0 ^F | 2.5 ^F | 2.4 ^F |
| 10 | (2.4) ^F | 2.1 ^F | A | A | 2.0 ^F | (2.2) ^F | (2.1) ^F | 3.3 | 4.0 | 4.8 | 5.0 | 5.5 | 5.7 | 5.8 | 5.4 | 5.2 | 5.7 | 5.2 | 5.5 | 5.5 | 4.9 | 3.6 | C | C |
| 11 | (2.8) ^S | (2.5) ^S | (2.2) ^S | (2.3) ^S | (2.4) ^F | (2.2) ^S | (2.3) ^S | 3.3 | 3.7 | (3.8) ^S | <3.8 ^G | <3.9 ^G | <3.9 ^G | 4.2 | 4.5 ^K | 4.5 ^K | 4.5 ^K | 4.4 ^K | 4.0 ^K | 3.5 ^K | 3.0 ^K | 2.8 ^K | 2.2 ^K | 2.2 ^K |
| 12 | 2.1 ^K | 2.0 ^S | 2.2 | 2.2 | 2.3 | 2.1 | 2.2 | 3.5 | 4.2 | 4.6 | 4.9 | 5.2 | 5.3 | 5.5 | 5.4 | 5.4 ^H | 5.6 | 5.3 | 5.2 | 4.3 | 3.6 | 2.7 | 2.3 | 2.1 |
| 13 | 2.1 ^A | 2.4 ^F | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 3.7 | 4.2 | 4.5 | 5.0 | 4.9 | 5.3 | 5.6 | 5.8 | 5.6 | 5.2 | 5.5 | 5.6 | 4.9 | 3.8 | 3.1 | 2.7 ^F | 2.6 |
| 14 | 2.6 ^F | 2.8 ^F | 2.9 | 2.6 | 2.4 | 2.3 | 2.4 ^F | 4.1 | 4.9 | 5.6 ^H | 5.1 | 5.8 | 5.1 | 5.3 | 5.2 | 5.3 | 5.2 ^F | 5.2 ^F | 5.6 | 4.7 ^F | 3.7 ^F | (3.4) ^S | (2.8) ^S | 2.7 ^F |
| 15 | 2.7 ^F | 2.6 ^F | 2.4 ^F | 2.3 ^F | (2.2) ^S | (2.0) ^S | 2.6 ^F | 3.7 | 3.8 | 4.4 | 4.3 | <3.9 ^G | <3.9 ^G | 4.6 ^K | 4.5 ^K | 4.4 ^K | 4.6 ^K | 4.4 ^K | 3.9 ^K | 4.1 ^K | 3.2 ^K | 2.6 ^K | 2.3 ^K | (2.3) ^S |
| 16 | (2.2) ^F | F ^S | F ^S | S ^K | S ^K | S ^K | (2.0) ^S | 3.2 ^K | <3.5 ^G | <3.7 ^G | <3.8 ^G | 4.5 ^K | 4.5 ^K | 4.5 ^K | 4.4 ^K | 4.7 ^K | 4.5 ^K | 4.5 ^K | 4.4 ^K | 3.8 ^K | 3.5 ^K | 2.9 ^K | 2.4 ^K | 2.1 ^K |
| 17 | (1.9) ^S | (1.7) ^S | (2.0) ^F | F ^S | F ^S | (1.9) ^F | (2.1) ^F | 3.7 | 3.8 | (3.9) ^S | <3.8 ^G | <3.9 ^G | 4.3 ^K | 4.3 ^K | (4.4) ^K | 4.3 ^K | 4.5 ^K | 4.4 ^K | 4.3 ^K | (3.2) ^F | (2.7) ^K | (2.3) ^K | F ^S | F ^S |
| 18 | F ^S | F ^S | (2.1) ^S | (2.2) ^S | (2.3) ^F | (2.4) ^F | (2.8) ^S | 3.9 ^S | 4.3 | 4.2 | 4.7 | 4.9 | 5.0 | 4.9 | 5.6 | 5.2 | 6.0 | 5.8 | 4.9 | 4.8 | 4.2 | (3.0) ^F | 2.6 ^F | (2.6) ^F |
| 19 | F ^S | F ^S | F ^S | (2.1) ^F | (2.2) ^F | F ^S | (2.5) ^F | 4.4 | 4.5 | 4.7 ^F | 5.0 ^H | 4.9 ^S | 5.0 ^H | 5.1 ^H | 5.7 | 6.0 | 5.8 | 6.2 | 5.4 | 4.7 | 3.9 | (3.2) ^S | 2.6 ^F | (2.6) ^F |
| 20 | 2.3 ^F | (2.2) ^F | 2.3 ^F | 2.4 ^F | 2.4 | 2.3 | 3.0 | 4.5 | 5.2 | 5.4 | 5.5 | 5.5 | 5.6 | 5.8 | 6.0 | 6.0 | 5.7 | 5.2 | 5.6 | 5.0 | 4.8 | 3.7 | 3.0 | 2.8 |
| 21 | 2.4 | 2.3 | 2.4 | (2.3) ^F | 2.2 | 2.2 | 2.7 | 4.1 | 4.7 | 5.0 | 5.4 | 5.6 | 5.8 | 5.8 | 6.1 | 5.7 | 5.6 | 5.3 | 6.2 | 5.8 | 4.3 | 3.7 | 3.4 | 3.0 |
| 22 | 2.6 | 2.4 | 2.2 | 2.0 | (1.9) ^S | 2.1 | (2.7) ^S | 3.3 | 4.3 | (3.9) ^S | <3.7 ^G | <3.8 ^G | <3.8 ^G | <3.8 ^G | <3.7 ^K | <3.5 ^K | 3.7 ^K | 3.6 ^K | 3.6 ^K | (3.5) ^K | (3.2) ^F | 2.5 ^F | (2.2) ^B | (2.2) ^B |
| 23 | F ^S | F ^S | (1.8) ^S | (1.8) ^S | (2.0) ^F | (2.0) ^F | 2.5 | 3.6 | (3.8) ^H | 4.5 | 4.7 | 4.9 | 4.9 | 5.2 | 5.8 | 5.5 | 6.2 | 6.6 | 6.2 | (5.3) ^S | 5.1 | 3.7 | 3.3 | (2.8) ^F |
| 24 | (2.1) ^F | (2.1) ^F | (2.1) ^F | (1.9) ^S | (1.6) ^S | (1.8) ^S | 2.5 | 3.6 | 3.8 | 4.1 | 4.2 | 4.3 | 4.2 ^K | 4.5 ^K | 4.6 ^K | 4.4 ^K | 4.6 ^K | 4.5 ^K | 4.3 ^K | 4.2 ^K | (3.9) ^S | (3.4) ^S | (2.8) ^S | (2.4) ^S |
| 25 | (1.7) ^F | F ^S | F ^S | F ^S | F ^S | F ^S | (2.5) ^F | 3.9 ^F | (4.2) ^S | (4.6) ^S | 5.1 | 5.9 | 5.3 | 5.5 | 6.0 | 5.9 | 5.2 | 5.2 | (4.8) ^S | 4.4 | (3.9) ^S | (3.4) ^S | (2.8) ^S | (2.5) ^S |
| 26 | (2.3) ^S | (2.4) ^F | (2.5) ^S | 2.3 | (2.2) ^S | 2.1 ^S | 2.8 | 3.9 | 4.3 | (4.2) ^S | 4.2 ^H | <4.0 ^G | 4.4 ^H | 4.6 ^K | 4.5 ^K | 4.5 ^K | 4.5 ^K | 4.5 ^K | 4.3 ^K | 3.7 ^K | 3.3 ^K | 3.1 ^K | (2.8) ^S | (2.5) ^S |
| 27 | (2.3) ^S | (2.3) ^S | 2.3 ^F | 2.4 ^F | 2.4 ^F | (2.4) ^F | (2.6) ^S | 3.9 | (3.9) ^F | 4.7 | 4.7 | 4.7 | 4.7 | 5.1 | 5.0 | 5.0 | 4.9 | 4.8 | 4.7 | 4.2 | 3.9 | 3.1 | 2.8 | 2.6 |
| 28 | 2.4 | 2.3 ^F | (2.3) ^S | (2.3) ^S | 2.0 ^F | (2.1) ^S | 3.2 ^F | 4.8 | 4.4 | 4.4 | 5.3 | 5.6 | 5.8 | 5.0 | 5.5 | 5.5 | 5.5 | 5.5 | 5.6 | 5.1 | 5.2 | 4.9 | 2.7 ^F | 2.4 ^F |
| 29 | 2.3 ^F | 2.2 ^F | 1.9 ^F | (2.1) ^S | 2.2 ^F | 2.2 ^F | 3.0 | 4.2 | 4.3 | 4.8 ^S | 5.0 | 5.1 | 5.5 | 5.4 | 5.3 | 5.4 ^H | 5.5 | 5.4 | 5.4 | (5.4) ^S | 4.1 | (3.3) ^S | 3.2 | (2.7) ^F |
| 30 | 2.5 | 2.4 | 2.5 | 2.3 | 2.3 | 2.2 | 3.1 | 4.2 | 4.5 | 4.9 | 5.0 | 5.5 | 5.5 | 6.0 | 6.1 | 5.8 | 6.4 | 6.2 | 6.8 | 7.0 | 5.7 | 4.9 | 4.2 ^K | 4.0 ^K |
| 31 | 3.7 ^K | 3.5 ^K | 2.8 ^K | 1.9 ^F | (1.8) ^S | (1.6) ^S | (2.4) ^F | 3.1 ^K | <3.5 ^G | (3.9) ^S | <3.8 ^G | <3.8 ^G | <3.8 ^G | <3.8 ^G | <3.8 ^G | 4.0 ^K | 4.1 ^K | (3.8) ^K | (3.8) ^S | 3.6 ^K | (3.1) ^F | (2.8) ^K | (2.3) ^F | (2.1) ^F |
| Median | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.2 | 2.5 | 3.8 | 4.3 | 4.6 | 5.0 | 5.1 | 5.1 | 5.3 | 5.4 | 5.4 | 5.4 | 5.2 | 5.0 | 4.7 | 3.8 | 3.2 | 2.8 | 2.6 |
| Count | 2.7 | 2.5 | 2.6 | 2.6 | 2.6 | 2.8 | 3.1 | 3.1 | 3.1 | 3.0 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 2.9 | 2.9 | 2.9 |

04.60

Sweep 10—Mc to 25.0 Mc in 0.225 min

Manual ☐ Automatic ☒

foF₂ (Characteristic)
Observed at Washington, D.C.
Mc (Unit) March 1955

National Bureau of Standards
(Institution)
Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.
Calculated by: E.J.W., J.W.P., L.F.M., J.J.S.

| Day | | 75°W | | | | | | | | | | | | Mean Time | | | | | | | | | | | |
|--------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|
| | | 0030 | 0130 | 0230 | 0330 | 0430 | 0530 | 0630 | 0730 | 0830 | 0930 | 1030 | 1130 | 1230 | 1330 | 1430 | 1530 | 1630 | 1730 | 1830 | 1930 | 2030 | 2130 | 2230 | 2330 |
| 1 | F ^s | F ^s | F ^s | F ^s | F ^s | (2.71) ^F | (2.47) ^F | (2.40) ^F | 5.1 | (5.4) ^C | 5.4 ^H | 5.6 | 5.4 | 5.7 | 5.7 | 5.8 | 5.6 | 6.3 | 5.8 | 5.9 | 3.3 | 2.8 | 2.5 | 2.5 | 2.5 ^F |
| 2 | (2.6) ^F | (2.5) ^F | 2.7 | 3.0 | 3.0 | 3.1 | 3.3 | 4.9 | (4.9) ^C | 5.3 | (5.7) ^F | 6.0 | 6.0 ^H | 6.5 ^H | 6.5 | 5.8 ^F | 5.5 | 5.4 | 5.0 | 3.9 | 3.6 | (3.2) ^F | 2.9 | (2.5) ^F | |
| 3 | 2.7 | 2.6 | 2.9 | 3.1 | 3.1 ^F | 3.0 | 3.7 ^F | 5.3 | 6.1 | 5.9 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.6 | 5.5 | 3.8 ^F | 3.5 ^F | 3.0 ^F | 3.0 ^F | (2.9) ^F | |
| 4 | (2.5) ^F | (2.4) ^F | (2.7) ^F | 2.9 ^F | 3.0 | 3.0 | 3.7 ^F | 5.6 | 6.0 | 5.7 | 5.8 | 5.6 | 5.8 | 6.6 | 5.7 | 5.8 | 5.8 | 5.9 | 5.7 | 5.5 ^F | 4.6 ^F | 4.2 ^F | 4.2 ^F | 3.8 ^F | |
| 5 | 3.2 ^F | 3.2 ^F | 3.1 | 3.1 ^F | 2.6 ^F | 2.3 | 2.9 | 4.3 ^F | 4.7 | (4.6) ^H | (4.7) ^H | 4.9 | 5.1 | 4.9 | 5.0 | 5.0 | 4.7 | 4.7 | 4.7 ^F | (4.1) ^F | (3.7) ^F | (3.3) ^F | (2.6) ^F | | |
| 6 | 2.7 ^F | 2.6 | 2.6 ^F | 2.5 ^F | 2.2 ^F | (1.9) ^F | 2.8 | 3.8 | (4.4) ^M | 4.4 | 5.0 | 5.0 | 4.8 | 5.1 | 5.3 | 5.2 | 5.4 | 5.0 | 4.4 | 3.8 | 3.3 | 3.5 | 3.0 | 2.9 | |
| 7 | 2.9 | 3.0 ^F | 2.8 ^F | 2.7 | 2.5 ^F | (2.6) ^F | 3.5 | 4.8 | 5.6 | 5.2 | 5.6 | 5.1 ^H | 5.6 | 5.8 | 6.0 | 5.2 | 5.7 | 4.9 | 4.7 | 4.8 | 3.3 | 3.3 | 3.2 | 2.9 | |
| 8 | 2.6 ^F | (2.8) ^F | (2.9) ^F | 2.9 ^F | (2.4) ^F | 2.3 ^F | 3.1 ^F | 4.7 | 4.9 | 5.2 | 5.4 | 5.2 | 5.4 | 5.6 | 5.6 | 5.4 | 5.1 | 5.0 | 4.7 | 4.1 | 3.3 | 2.7 | 2.6 | 2.5 | |
| 9 | 2.4 | 2.5 ^F | 2.7 ^F | 2.7 ^F | 2.6 ^F | 2.5 | 2.9 | 3.7 ^F | 4.2 ^F | 4.2 | 5.0 | 5.0 | 5.4 | 5.2 | 5.0 | 5.4 | 5.1 | 4.4 | 4.4 ^F | 3.6 ^F | (3.4) ^F | 2.6 ^F | 2.5 ^F | 2.4 ^F | |
| 10 | (2.2) ^F | 2.0 ^F | (2.0) ^F | (1.9) ^F | 2.1 ^F | (2.1) ^F | 2.8 ^F | 3.9 | 4.4 | 5.0 | 5.5 | 5.6 | 5.5 | 5.4 | 5.2 | 5.3 | 5.6 | 5.4 | 5.7 | 5.0 | 4.8 | C | C | C | |
| 11 | (2.5) ^F | (2.2) ^F | 2.1 ^F | (2.3) ^F | (2.2) ^F | (2.2) ^F | (3.8) ^F | 3.5 ^H | 3.6 ^F | (3.8) ^F | (3.8) ^F | (3.9) ^F | 4.3 ^H | 4.4 | 4.4 | 4.5 ^K | 4.5 ^K | 4.2 ^K | 3.8 ^K | 3.4 ^K | 2.7 ^K | 2.5 ^K | 2.2 ^K | 2.1 ^K | |
| 12 | 2.2 ^K | 2.1 ^F | 2.2 | 2.1 | 2.2 | 1.9 | 3.1 | 3.8 | 4.3 | 4.8 | 5.0 | 5.4 | 5.7 | 5.7 | 5.3 | 5.6 | 5.4 | 5.6 | 4.7 | 3.9 | 3.0 ^F | 2.5 ^F | 2.2 ^F | 2.2 | |
| 13 | (2.3) ^K | (2.4) ^F | 2.3 ^F | 2.4 | 2.2 | 2.2 ^F | 3.1 | 4.4 | 4.3 ^H | 4.9 | 5.1 | 4.9 | 5.3 | 5.7 | 5.3 | 5.6 | 5.4 | 5.4 | 5.4 ^F | 4.2 | 3.3 ^F | 3.0 ^F | 2.7 ^F | 2.7 | |
| 14 | 2.7 | 2.8 | 2.8 | 2.6 ^F | 2.3 ^F | 2.3 ^F | 3.2 ^F | 4.4 | 5.2 | 5.4 | 5.4 | 5.2 | 5.5 | 5.2 | 5.2 | 5.4 | 5.2 ^F | 5.4 | 5.2 ^F | 3.8 ^F | (3.4) ^F | 3.3 ^F | 2.6 ^F | 2.5 ^F | |
| 15 | 2.5 ^F | 2.6 ^F | 2.4 ^F | 2.3 ^F | (2.1) ^F | (2.1) ^F | 3.4 | (4.1) ^H | 4.1 ^H | 4.4 | (4.5) ^P | 4.4 | (4.0) ^K | 4.5 ^K | 4.6 ^K | 4.5 ^K | 4.3 ^K | 4.3 ^K | 4.2 ^K | 3.6 ^K | 2.8 ^K | (2.6) ^K | 2.4 ^K | (2.0) ^K | |
| 16 | (2.0) ^K | F ^K | F ^K | F ^K | 5 ^K | K ^{1.8} | K ^{2.8} | K ^(3.4) | (3.8) ^K | (3.8) ^K | K ^(4.3) | (4.3) ^K | 4.5 ^K | 4.5 ^K | 4.3 ^K | 4.4 ^K | 4.7 ^K | 4.7 ^K | 3.8 ^K | 3.8 ^K | 3.2 ^K | 2.7 ^K | 2.2 ^K | 2.0 ^K | |
| 17 | 1.9 ^K | (1.8) ^F | F ^s | F ^s | F ^s | F ^s | F ^s | 3.0 | 3.7 | (3.8) ^F | (3.8) ^F | (3.8) ^F | 4.3 ^K | 4.3 ^K | 4.4 ^K | 4.3 ^K | 4.4 ^K | 4.5 ^K | 3.7 ^K | K ^(3.0) | (2.6) ^F | 2.3 ^F | F ^K | F ^s | |
| 18 | F ^s | F ^s | F ^s | (2.2) ^F | 2.6 ^F | (2.4) ^F | 3.5 ^F | 4.2 | 4.3 | 4.4 | 4.9 | 4.7 | 5.0 | 5.2 | 5.8 | 5.7 | 6.2 | 5.2 | 4.7 | 4.8 | 3.4 ^F | (2.8) ^F | (2.6) ^F | F | |
| 19 | F | F | F | 2.4 | 2.4 | F | 3.5 | 4.5 | (4.6) ^F | 4.8 | 5.0 | 5.6 | 5.2 | 5.8 | 5.8 | 5.8 | 5.8 | 5.9 | 5.2 | 4.4 ^F | (3.5) ^F | (2.7) ^F | (2.5) ^F | 2.4 ^F | |
| 20 | 2.2 ^F | (2.3) ^F | 2.5 ^F | (2.3) ^F | 2.3 ^F | 2.3 ^F | 3.9 | 5.0 | 5.4 | 5.2 | 5.5 ^F | 5.6 | 5.7 | 5.8 | 5.8 | 6.2 | 5.3 | 5.4 | 5.2 | 4.8 ^F | 4.4 | 3.2 | 3.0 | 2.7 | |
| 21 | 2.4 ^F | 2.4 | 2.4 | 2.3 ^F | 2.3 | 2.4 ^F | 3.5 | 4.4 ^H | 4.7 ^H | 5.2 | 5.4 | (5.7) ^H | 5.6 | 5.8 | 5.9 | 5.6 | 5.7 | 6.4 | 6.0 ^F | 4.9 | 3.8 | 3.6 | 3.1 | 2.8 | |
| 22 | 2.4 | 2.4 | 2.2 | (2.0) ^F | (2.0) ^F | (2.0) ^F | 3.2 | (3.7) ^F | (4.3) ^F | (4.0) ^F | (3.7) ^F | (3.8) ^F | (3.8) ^F | 5.8 | (3.7) ^F | (3.5) ^K | (3.5) ^K | 3.5 ^K | 3.7 ^K | K ^(3.4) | K ^(3.7) | 2.4 ^K | K ^(2.3) | | |
| 23 | F ^K | F ^B | (2.0) ^F | (1.8) ^F | 2.4 ^F | (2.1) ^F | 3.2 | 3.9 | 4.1 ^H | 4.5 ^F | (4.1) ^F | 5.0 | 4.9 | 5.8 | 5.4 | 5.4 | 6.6 | 5.8 | 5.7 | 5.4 ^F | 4.5 | (3.4) ^F | (3.0) ^F | (2.4) ^F | |
| 24 | (2.2) ^F | (2.1) ^F | (2.3) ^F | (1.9) ^F | (1.7) ^F | (2.4) ^F | 3.2 | 3.7 | 4.0 | 4.1 | 4.2 | 4.3 | 4.3 ^K | 4.5 ^K | 4.6 ^K | 4.4 ^F | 4.6 ^K | 4.2 ^K | K ^(4.0) | K ^(3.6) | K ^(3.0) | K ^(2.5) | K ^(2.0) | | |
| 25 | F ^K | F ^K | F ^s | F ^s | F ^s | F ^s | 3.3 | (4.0) ^F | (4.5) ^F | 4.8 ^H | 5.0 ^H | 5.2 | 5.3 | 6.0 | 5.8 | (5.5) ^F | 5.4 | 4.9 | 4.5 | (4.2) ^F | 3.7 | 2.9 | 2.7 ^F | (2.4) ^F | |
| 26 | (2.2) ^F | (2.6) ^F | 2.5 ^F | 2.2 | 2.2 | 2.2 ^F | 3.4 | 4.4 | 4.1 ^H | 3.9 ^F | (4.0) ^F | (4.0) ^F | 4.5 | 4.4 ^K | 4.5 ^K | 4.5 ^K | 4.6 ^K | 4.4 ^K | 4.0 ^K | 3.4 ^K | 3.2 ^K | 2.9 ^K | K ^(2.7) | K ^(2.5) | |
| 27 | 2.2 ^F | (2.3) ^F | 2.4 ^F | (2.3) ^F | (2.0) ^F | (2.0) ^F | 3.3 | 3.8 | (3.8) ^F | 4.8 | 4.9 | 4.8 | 5.1 | 5.1 | 5.0 | (5.0) ^M | 4.7 | 4.8 | 4.4 | 4.1 | 3.5 | 3.0 | 2.7 ^F | 2.4 | |
| 28 | 2.3 ^F | (2.4) ^F | 2.3 ^F | (2.1) ^F | (2.0) ^F | (2.1) ^F | 4.0 | 4.8 | 4.5 | 4.9 ^H | 5.2 | 5.7 | 5.5 | 5.2 | 5.4 | 5.5 | 5.6 | 5.3 | 5.5 | 5.1 | 4.3 | 3.2 ^F | 2.5 ^F | 2.3 | |
| 29 | 2.3 ^F | 2.2 ^F | 2.0 ^F | 2.2 ^F | 2.2 ^F | 2.2 ^F | 2.4 | 3.6 | 4.3 | 4.9 | 4.9 | 5.0 | 5.4 | 5.5 | 5.6 | 5.5 | 5.6 | 5.4 | 5.4 | 4.9 | 3.6 | 3.3 | (2.9) ^F | (2.6) ^F | |
| 30 | 2.5 | 2.5 | 2.3 | 2.3 | 2.3 | 2.3 | 3.9 | 4.7 | 5.2 | 5.0 | 5.5 | 5.2 | 6.0 | 6.2 | 5.9 | 6.4 | 6.0 | 6.6 | 6.8 | 6.3 | 5.5 | 4.8 | 4.0 ^K | 3.6 ^K | |
| 31 | 3.7 ^K | 3.2 ^K | K ^(2.4) | K ^(1.9) | K ^(1.7) | K ^(1.7) | 2.8 ^K | (3.5) ^K | (3.6) ^K | (3.7) ^K | (3.8) ^K | (3.8) ^K | (3.8) ^K | (3.8) ^K | (3.7) ^K | 4.2 ^K | K ^(3.8) | 3.7 ^K | (3.7) ^K | K ^(3.3) | K ^(3.2) | K ^(2.4) | K ^(2.0) | K ^(2.0) | |
| Median | 2.4 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 3.2 | 4.3 | 4.4 | 4.8 | 5.0 | 5.1 | 5.3 | 5.4 | 5.4 | 5.4 | 5.4 | 5.2 | 4.7 | 4.1 | 3.4 | 3.0 | 2.7 | 2.5 | |
| Count | 2.6 | 2.5 | 2.6 | 2.7 | 2.8 | 2.8 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.0 | 2.9 | 2.8 | |

Calculated by: E.J.W. J.W.P., L.F.M., J.J.S.

TABLE 82
Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

IONOSPHERIC DATA

Scaled by: E. J. W., J. W. P., L. E. M., J. J. S.
Calculated by: E. J. W., J. W. P., L. E. M., J. J. S.

h'F1 (Characteristic) , Km (Unit) , March (Month) 1955
Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|--------|----|----|----|----|----|----|----|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----|----|----|----|----|----|
| 1 | | | | | | | | Q | 220 | 200 ^H | 200 ^H | 190 | 170 ^H | 200 ^H | 190 ^H | 200 ^H | 210 | Q | | | | | | |
| 2 | | | | | | | | Q | 210 | 200 ^H | 190 ^H | 200 | 190 ^H | 220 | 200 | 210 | 220 | 230 | | | | | | |
| 3 | | | | | | | | Q | 220 | 210 | 190 ^H | 180 ^H | 220 | 210 | 220 | 210 | 220 | 220 | | | | | | |
| 4 | | | | | | | | 230 | 220 | 200 | 190 | 190 | 170 | 180 | 200 | 200 ^H | 230 | 230 | | | | | | |
| 5 | | | | | | | | 240 | 230 | 220 | 200 ^H | 190 | 170 | 180 | 230 | 220 | 210 ^H | Q | | | | | | |
| 6 | | | | | | | | 240 | 230 | 220 ^M | 200 ^H | 190 ^H | 230 | 210 | 230 | 220 | 230 | 240 | | | | | | |
| 7 | | | | | | | | Q | 230 | 210 | 200 | 220 | 210 ^H | 240 | 230 | 230 | 230 | 230 | | | | | | |
| 8 | | | | | | | | Q | 230 | 230 ^A | 220 ^A | 210 | 190 ^H | 200 | 230 | 220 | 220 | 230 | | | | | | |
| 9 | | | | | | | | Q | 230 | 220 ^H | 210 | 200 | 200 | 210 | 210 | 230 | 230 | 240 ^H | | | | | | |
| 10 | | | | | | | | Q | 230 | 210 | 200 | 180 | 190 ^H | 210 ^H | 210 | 230 | 230 | 230 | | | | | | |
| 11 | | | | | | | | Q | 230 | 220 | 200 ^H | 190 ^H | 210 ^H | 200 ^K | 220 ^H | 220 ^H | 220 ^K | 230 ^K | | | | | | |
| 12 | | | | | | | | Q | 220 | 200 | 200 ^H | 210 ^H | 190 ^H | 200 ^H | 220 | 220 | 220 | 230 ^S | | | | | | |
| 13 | | | | | | | | Q | 220 | 200 | 210 ^H | 200 ^H | 190 ^H | 200 ^H | 200 | 210 | 210 | 220 | | | | | | |
| 14 | | | | | | | | 220 | 210 | 220 | 190 | 170 ^H | 180 | 180 ^H | 200 | 210 | 210 | 220 | | | | | | |
| 15 | | | | | | | | 230 | 220 | 220 | 210 | 190 | 240 ^K | 180 ^K | 230 ^K | 230 ^K | 220 ^K | 230 ^K | | | | | | |
| 16 | | | | | | | | Q ^K | 220 ^K | 200 ^K | 180 ^K | 170 ^K | 170 ^K | 170 ^K | 200 ^K | 210 ^K | 220 ^K | 240 ^K | | | | | | |
| 17 | | | | | | | | 240 | 220 | 200 | 200 ^H | 220 | 200 ^K | 240 ^K | 210 ^K | 220 ^K | 210 ^K | 230 ^K | | | | | | |
| 18 | | | | | | | | Q | 210 | 200 | 190 | 190 ^H | 210 | 210 | 210 | 230 | 220 | 230 | | | | | | |
| 19 | | | | | | | | Q | 210 | 210 | 230 | 190 ^H | 190 ^H | 230 | 180 | 200 ^H | 230 | 220 | | | | | | |
| 20 | | | | | | | | 230 | 220 | 200 | 190 | 180 | 190 ^H | 230 | 210 | 210 | 230 | 220 | | | | | | |
| 21 | | | | | | | | 240 | 220 | 210 | 220 ^H | 180 ^H | 210 | 180 | 230 | 220 | 230 | 230 | | | | | | |
| 22 | | | | | | | | 230 | 230 | 210 | 220 ^F | 200 ^F | 200 ^H | 200 ^H | 240 ^K | 240 ^K | 250 ^K | 240 ^K | | | | | | |
| 23 | | | | | | | | Q | 210 ^H | 190 | 250 | 180 ^H | 220 | 230 | 220 ^H | 220 | 220 | 230 | | | | | | |
| 24 | | | | | | | | Q | 210 | 200 ^H | 200 ^H | 190 | 170 ^K | 190 ^K | 230 ^K | 220 ^K | 230 ^K | 230 ^S | | | | | | |
| 25 | | | | | | | | Q | Q | 190 ^H | 200 | 180 | 200 | 190 | 190 ^H | 220 | 220 | 220 | | | | | | |
| 26 | | | | | | | | 240 ^S | 210 ^H | 200 ^H | 200 ^H | 190 ^H | 250 ^K | 240 ^K | 230 ^K | 230 ^K | 220 ^K | 240 ^K | | | | | | |
| 27 | | | | | | | | 230 | 220 | 210 | 200 | 180 ^H | 180 | 210 ^H | 210 | 210 | 200 ^H | 230 | 240 | | | | | |
| 28 | | | | | | | | 230 | 220 | 190 ^H | 180 ^H | 180 ^H | 220 ^H | 210 | 190 ^H | 210 | 200 ^H | 240 | | | | | | |
| 29 | | | | | | | | 230 | 210 | 190 ^H | 200 | 190 | 180 ^H | 180 ^H | 210 ^H | 210 ^H | 220 | 220 | | | | | | |
| 30 | | | | | | | | Q | 230 | 210 | 190 | 180 ^H | 210 ^H | 210 | 210 | 230 ^H | 210 | 230 | | | | | | |
| 31 | | | | | | | | Q ^K | 210 ^K | 190 ^K | 190 ^K | 180 ^K | 200 ^K | 200 ^K | 210 ^K | 210 ^K | 220 ^K | 250 ^K | | | | | | |
| Median | | | | | | | | 230 | 220 | 200 | 200 | 190 | 200 | 210 | 210 | 220 | 220 | 230 | 240 | | | | | |
| Count | | | | | | | | 14 | 30 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 5 | | | | | |

TABLE 84
Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

h'f_oF₂ (Characteristic) Km (Unit) March (Month) 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

IONOSPHERIC DATA

National Bureau of Standards
(Institution)
Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by: E.J.W., J.W.P., L.F.M., J.J.S.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|--------|----|----|----|----|----|----|----|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----|----|----|----|----|----|
| 1 | | | | | | | | S | 110 ^M | 100 ^M | 103 | 113 ^M | 100 | 113 | 100 | 110 | 110 | 120 | | | | | | |
| 2 | | | | | | | | S | 120 ^M | 110 ^M | 110 ^M | 120 ^M | 110 ^M | 113 | 110 ^M | 110 | 110 | 120 | | | | | | |
| 3 | | | | | | | | S | 120 ^M | 110 ^M | 110 | 113 | 113 | 113 | 110 | 110 | 110 | 120 ^A | | | | | | |
| 4 | | | | | | | | S | 113 | 110 | 110 | 113 | 113 | 113 | 110 | 110 | 110 | 120 | | | | | | |
| 5 | | | | | | | | S | 110 | 110 | 113 | 113 | 113 | 113 | 110 ^A | 120 ^M | 110 | 110 | | | | | | |
| 6 | | | | | | | | 130 ^S | 120 | 113 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | | | | | | | |
| 7 | | | | | | | | S | 113 ^M | 110 | 113 ^M | 113 | 120 | 120 | 120 ^M | 110 | 110 | 120 | | | | | | |
| 8 | | | | | | | | 120 | 113 ^A | 113 ^A | A | A | 113 | 113 | 110 | 113 | 113 | 120 ^M | | | | | | |
| 9 | | | | | | | | 120 ^S | 120 ^M | 110 | 113 ^M | 113 ^M | 120 | 120 | 120 | 120 | 110 | 120 | | | | | | |
| 10 | | | | | | | | 140 | 110 | 110 | 120 | 120 | 120 | 120 | 120 | 110 | 110 | 120 | | | | | | |
| 11 | | | | | | | | 130 | 113 | 110 | 110 | 113 ^A | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | | | | | | |
| 12 | | | | | | | | 120 ^S | 113 | 113 ^A | 113 ^A | 113 | 120 | 120 | 120 | 110 | 110 | 120 ^S | | | | | | |
| 13 | | | | | | | | 120 | 113 ^S | 110 | 113 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 110 | 110 | 120 | | | | | | |
| 14 | | | | | | | | S | 120 | 120 | 120 | 120 | 120 | 120 | 120 ^S | 110 | 110 | 120 | | | | | | |
| 15 | | | | | | | | 120 | 120 ^M | A | A | 120 | 120 ^M | 120 ^M | 120 ^M | 110 | 110 | 120 ^M | | | | | | |
| 16 | | | | | | | | 130 ^K | 110 ^M | 110 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 110 ^M | 110 ^M | 120 ^M | | | | | | |
| 17 | | | | | | | | S | 110 | 110 ^M | 110 | 113 ^A | 110 ^M | 110 ^M | 110 ^M | 110 ^M | 110 ^M | 120 ^M | | | | | | |
| 18 | | | | | | | | 120 | 110 | 110 | 110 | 120 | 120 | 120 | 120 | 110 | 110 | 120 | | | | | | |
| 19 | | | | | | | | S | 110 | 110 | 120 | 120 ^M | 120 | 120 | 120 | 100 | 110 | 120 | | | | | | |
| 20 | | | | | | | | 120 | 110 | 110 | 113 | 120 | 120 | 120 | 110 | 110 | 110 | 120 | | | | | | |
| 21 | | | | | | | | 120 | 110 | 110 | 110 ^M | 103 | 120 | 120 | 110 | 110 | 110 | 120 | | | | | | |
| 22 | | | | | | | | 120 | 110 | 110 ^M | 113 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 110 ^M | 110 ^M | 120 ^M | | | | | | |
| 23 | | | | | | | | 120 ^S | 110 ^M | 120 ^M | 120 | 120 | 120 | 120 | 110 | 110 | 110 | 120 | | | | | | |
| 24 | | | | | | | | 110 | 110 | 110 | 110 | 120 | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 110 ^M | 120 | | | | | | |
| 25 | | | | | | | | A | 120 | 110 | 120 | 120 ^M | 120 | 120 | 110 ^M | 120 ^M | 110 | 120 ^M | | | | | | |
| 26 | | | | | | | | 120 ^S | 110 | 110 | 113 ^A | 113 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 110 ^M | 120 ^M | | | | | | |
| 27 | | | | | | | | 120 ^S | 110 ^M | 113 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 110 ^M | 120 | | | | | | |
| 28 | | | | | | | | 120 | 110 | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 110 | 110 | 120 | | | | | | |
| 29 | | | | | | | | S | 120 ^M | 110 | 110 | 120 | 120 | 120 | 113 ^M | 110 | 110 | 120 | | | | | | |
| 30 | | | | | | | | S | 120 ^S | 110 | 120 | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 110 | 120 | | | | | | |
| 31 | | | | | | | | S | 120 ^K | 110 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 120 ^M | 110 ^M | 120 | | | | | | |
| Median | | | | | | | | | 120 | 110 | 110 | 120 | 120 | 120 | 110 | 110 | 110 | 120 | | | | | | |
| Count | | | | | | | | | 21 | 31 | 30 | 30 | 31 | 31 | 31 | 31 | 31 | 31 | | | | | | |

foF₂ _____ Mc _____ March _____, 1955
(Characteristic) (Unit) (Month)
Observed at _____ Washington, D.C.
Lot 38.7°N, Long 77.1°W

IONOSPHERIC DATA

National Bureau of Standards
(Institution)
Scaled by: E. J. W. J. W. P. L. F. M. J. J. S.
Calculated by: E. J. W. J. W. P. L. F. M. J. J. S.

| Calculated by E.J.W. J.W.P., L.F.M. J.J.S. | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----|----|----|----|----|----|----|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------|----|-----------|----|----|----|--|
| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 75°W | | | | | | | | | | | | Mean Time | | | | |
| | | | | | | | | | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
| 1 | | | | | | | | S | 2.2 ^H | (2.2) ^P | 2.8 ^H | (2.7) ^F | 3.0 | 2.7 | 2.7 ^H | 2.5 | 1.8 | | | | | | | | |
| 2 | | | | | | | | S | 2.0 | 2.4 ^F | 2.8 ^H | 2.7 ^H | 3.0 ^H | 3.0 | 3.0 ^H | 2.8 | 2.5 | 2.0 | | | | | | | |
| 3 | | | | | | | | S | 2.3 ^H | 2.6 ^H | (2.7) ^P | (2.8) ^P | (2.8) ^P | (2.8) ^F | (2.7) ^P | (2.4) ^P | 2.2 | | | | | | | | |
| 4 | | | | | | | | S | 2.0 | (2.7) ^A | 2.9 | 3.1 | (3.1) ^A | (2.4) ^A | (2.8) ^A | 2.6 | 5 | | | | | | | | |
| 5 | | | | | | | | S | 2.1 | 2.4 | A | A | (2.9) ^A | 3.0 | 3.0 ^H | 2.8 | 2.5 | (2.0) ^H | | | | | | | |
| 6 | | | | | | | | 1.7 | 2.0 | M | 2.8 ^H | 2.7 ^H | (2.9) ^A | 2.9 | 2.7 ^H | 2.8 | 2.5 | 2.0 ^H | | | | | | | |
| 7 | | | | | | | | S | 2.2 ^H | 2.5 | 2.7 ^H | 2.8 ^H | 2.9 | 2.9 ^H | 2.8 ^H | 2.6 | 2.3 | 1.9 | | | | | | | |
| 8 | | | | | | | | 1.9 | A | A | A | A | 3.0 | 3.0 | 2.9 | 2.7 | 2.4 | (2.2) ^S | | | | | | | |
| 9 | | | | | | | | (1.9) ^S | 2.3 ^H | 2.4 | 2.7 ^F | 2.7 ^H | 3.0 | 3.0 | 2.7 | 2.7 | 2.4 ^H | 1.9 | | | | | | | |
| 10 | | | | | | | | 1.7 | (2.0) ^F | 2.2 | (2.5) ^S | 2.8 | (3.0) ^A | 3.0 | 3.0 | 2.8 | 2.4 | 2.0 | | | | | | | |
| 11 | | | | | | | | 1.7 | 2.0 | 2.4 | 2.7 | (2.7) ^A | (3.0) ^A | 3.0 ^H | 2.9 ^H | 2.7 ^A | 2.4 ^H | 1.9 ^H | K | | | | | | |
| 12 | | | | | | | | 1.7 | (2.1) ^H | A | A | (2.9) ^A | (2.9) ^F | 3.0 | 3.0 | 2.8 ^H | 2.5 | 1.9 | | | | | | | |
| 13 | | | | | | | | S | 1.9 | (2.5) ^A | 2.7 ^H | (2.9) ^A | 3.0 | (3.0) ^A | 2.7 | 2.8 | 2.5 | (2.1) ^F | | | | | | | |
| 14 | | | | | | | | S | 2.2 | (2.6) ^P | (2.7) ^P | 2.9 | 3.0 | 3.0 | 2.7 | 2.7 | 2.4 | A | | | | | | | |
| 15 | | | | | | | | (1.8) ^S | 2.2 ^H | A | A | 2.8 | 2.9 ^H | 2.9 ^H | 2.9 ^H | 2.7 ^K | (2.3) ^P | (1.9) ^H | K | | | | | | |
| 16 | | | | | | | | (1.8) ^K | (2.0) ^A | (2.4) ^A | (2.7) ^A | 2.9 ^H | 3.0 ^K | 3.0 ^K | 2.7 ^K | 2.6 ^H | 2.4 ^K | 2.0 ^K | K | | | | | | |
| 17 | | | | | | | | (1.8) ^S | 2.1 ^H | 2.6 ^H | 2.8 | (2.9) ^A | 3.0 ^K | 3.0 ^K | 2.7 ^K | 2.7 ^K | 2.4 ^H | 5 ^K | K | | | | | | |
| 18 | | | | | | | | 1.8 | 2.2 | 2.6 | 2.7 | 2.9 | 3.0 | 3.0 | 2.7 | 2.8 | 2.5 | 2.1 | | | | | | | |
| 19 | | | | | | | | S | 2.2 | (2.5) ^S | (2.8) ^A | 3.0 | 3.0 | (3.0) ^A | 3.0 | 2.9 | 2.6 | 2.2 | | | | | | | |
| 20 | | | | | | | | 1.7 | 2.4 ^F | (2.6) ^A | 2.9 | 3.1 | (3.2) ^A | (3.0) ^A | 2.9 | A | A | | | | | | | | |
| 21 | | | | | | | | (1.7) ^S | (2.3) ^A | 2.5 | 2.8 | 3.0 | 3.1 | 3.1 | 3.1 | 2.9 | 2.5 | 2.2 | | | | | | | |
| 22 | | | | | | | | 1.9 | (2.2) ^S | (2.5) ^S | (2.6) ^H | 2.8 ^H | 2.9 ^H | 3.0 ^K | 2.7 ^K | 2.8 ^K | 2.5 ^K | 2.2 ^H | K | | | | | | |
| 23 | | | | | | | | S | A | 2.7 ^H | 2.9 | 3.0 | 3.1 ^H | 2.9 | 2.7 | 2.7 | (2.4) ^S | 2.2 | | | | | | | |
| 24 | | | | | | | | (1.9) ^S | (2.4) ^A | 2.7 | (2.8) ^P | (2.9) ^A | 3.0 ^K | 3.0 ^K | 3.0 ^K | 2.8 ^H | 2.5 ^K | 2.3 ^K | K | | | | | | |
| 25 | | | | | | | | A | 2.5 | 2.5 ^H | 2.7 ^H | 3.1 ^H | (3.1) ^P | 3.0 | 3.0 ^H | (2.8) ^A | (2.4) ^A | 2.1 ^H | | | | | | | |
| 26 | | | | | | | | 2.0 ^H | 2.5 ^H | (2.8) ^A | 3.0 ^H | 3.0 ^K | 3.0 ^K | 3.0 ^K | 2.7 ^H | 2.8 ^H | 2.6 ^K | 2.3 ^K | K | | | | | | |
| 27 | | | | | | | | (1.9) ^H | (2.2) ^A | 2.5 ^H | 2.8 ^H | 2.9 | 3.1 ^H | 3.0 | 2.9 | 2.7 ^H | 2.5 | 2.2 | S | | | | | | |
| 28 | | | | | | | | 1.8 | 2.4 | 2.7 ^H | 2.8 ^H | 3.1 ^F | 3.1 ^F | 3.2 ^F | 3.1 | 2.9 | 2.6 | 2.2 | S | | | | | | |
| 29 | | | | | | | | 1.9 ^H | 2.4 ^H | (2.6) ^A | 2.7 ^H | (3.0) ^S | 3.1 ^H | (3.1) ^P | (3.0) ^A | 2.9 ^H | (2.7) ^A | 2.3 ^H | S | | | | | | |
| 30 | | | | | | | | 2.0 | 2.4 | 2.6 | 2.8 | 3.1 ^H | 3.2 | 3.0 | 2.9 | 2.9 | 2.6 | 2.2 | S | | | | | | |
| 31 | | | | | | | | 5 ^K | 2.0 ^K | 2.4 ^K | 2.7 ^K | (2.8) ^A | (3.0) ^H | (3.0) ^K | (3.0) ^K | (2.8) ^K | 2.5 ^K | 2.1 ^K | S ^K | | | | | | |
| Median | | | | | | | | 1.8 | 2.2 | 2.5 | 2.8 | 2.9 | 3.0 | 3.0 | 2.7 | 2.8 | 2.5 | 2.1 | | | | | | | |
| Count | | | | | | | | 2.0 | 2.7 | 2.7 | 2.7 | 2.7 | 3.1 | 3.1 | 3.1 | 3.1 | 3.0 | 2.7 | | | | | | | |

Sweep 1.0 - Mc to 25.0 Mc in 0.225 min

Manual ☐ Automatic ☒

01, 00

TABLE 86
Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

IONOSPHERIC DATA

National Bureau of Standards
(Institution)

Scaled by: E.J.W. JWP, L.F.M. JJS

Calculated by: E.J.W. JWP, L.F.M. JJS

E s (Characteristic) Mc, Km March 1955
Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------|
| 1 | E | E | E | E | E | E | E | G | G | 2.4 ¹⁰⁰ | 2.8 ¹⁰⁰ | 3.2 ¹¹⁰ | G | G | G | G | G | 3.0 ¹³⁰ | E | E | 3.3 ¹⁰⁰ | E | E | E |
| 2 | E | E | E | E | E | (3.3) ⁵ | (3.3) ⁵ | G | G | 3.2 ¹¹⁰ | 3.3 ¹¹⁰ | 3.4 ¹⁰⁰ | 4.4 ¹⁰⁰ | G | G | G | G | G | E | E | 1.8 ¹⁰⁰ | E | E | E |
| 3 | E | E | E | E | E | E | E | G | 3.2 ¹⁰⁰ | G | G | 2.9 ¹¹⁰ | 2.9 ¹¹⁰ | 3.2 ¹¹⁰ | 3.1 ¹¹⁰ | 2.9 ¹²⁰ | 2.6 ¹²⁰ | 3.0 ¹²⁰ | E | E | E | E | E | E |
| 4 | E | 2.8 ¹⁰⁰ | 2.7 ¹⁰⁰ | 3.3 ¹⁰⁰ | E | E | E | G | 3.0 ¹¹⁰ | G | 4.6 ¹²⁰ | 2.9 ¹¹⁰ | G | 3.4 ¹¹⁰ | 3.0 ¹²⁰ | 3.6 ¹¹⁰ | 3.4 ¹²⁰ | 3.0 ¹²⁰ | E | E | E | E | E | E |
| 5 | E | E | E | E | E | E | E | G | 3.0 ¹²⁰ | 4.0 ¹²⁰ | 3.5 ¹¹⁰ | 5.0 ¹¹⁰ | 3.7 ¹⁰⁰ | 2.8 ¹⁰⁰ | G | G | G | G | E | E | E | E | E | E |
| 6 | E | E | E | E | E | 2.7 ¹³⁰ | E | G | 3.1 ¹²⁰ | 3.1 ¹²⁰ | 3.3 ¹²⁰ | 3.7 ¹⁰⁰ | 4.7 ¹⁰⁰ | G | G | G | G | 2.9 ¹²⁰ | 2.9 ¹¹⁰ | 3.1 ¹¹⁰ | E | E | E | E |
| 7 | E | E | E | E | E | 2.3 ¹¹⁰ | E | G | 3.4 ¹¹⁰ | 5.3 ¹¹⁰ | G | G | G | G | G | G | G | G | E | E | E | E | E | E |
| 8 | E | E | E | E | E | E | E | G | 3.2 ¹¹⁰ | 4.2 ¹¹⁰ | 5.2 ¹⁰⁰ | 7.0 ¹⁰⁰ | G | G | G | G | G | G | E | E | E | E | E | E |
| 9 | 2.7 ¹¹⁰ | E | E | E | E | E | E | G | 3.0 ¹²⁰ | G | G | G | G | G | G | G | G | 2.1 ¹²⁰ | E | 1.1 ¹²⁰ | 3.0 ¹²⁰ | 2.9 ¹¹⁰ | 2.4 ¹¹⁰ | 1.10 |
| 10 | E | E | 3.0 ¹⁰⁰ | 3.0 ¹⁰⁰ | E | E | E | G | G | 2.6 ¹¹⁰ | 3.0 ¹¹⁰ | G | 3.0 ¹⁰⁰ | G | 3.1 ¹²⁰ | 7.8 ¹⁰⁰ | G | 2.3 ¹⁴⁰ | E | 2.3 ¹²⁰ | E | E | E | E |
| 11 | E | E | E | E | E | E | E | G | 2.2 ¹²⁰ | G | 2.6 ¹¹⁰ | 3.2 ¹¹⁰ | 3.1 ¹¹⁰ | G | G | G | G | G | E | E | E | E | E | E |
| 12 | E | E | 2.3 ¹¹⁰ | E | E | E | E | G | G | 3.1 ¹¹⁰ | 3.5 ¹¹⁰ | 2.9 ¹¹⁰ | 2.9 ¹²⁰ | G | G | G | G | 2.1 ¹²⁰ | E | E | E | E | 4.2 ¹¹⁰ | 1.10 |
| 13 | 5.7 ¹¹⁰ | 3.0 ¹¹⁰ | E | E | E | 2.1 ¹¹⁰ | E | G | 2.1 ¹²⁰ | 3.2 ¹¹⁰ | G | 3.5 ¹⁰⁰ | 4.7 ¹⁰⁰ | 3.1 ¹²⁰ | 4.6 ¹¹⁰ | 4.6 ¹¹⁰ | 3.6 ¹²⁰ | 3.0 ¹²⁰ | 2.9 ¹¹⁰ | E | E | E | E | E |
| 14 | E | E | E | E | E | E | E | G | 3.9 ¹²⁰ | G | G | 3.6 ¹⁰⁰ | G | G | G | G | 2.7 ¹²⁰ | 2.0 ¹¹⁰ | E | E | E | E | E | E |
| 15 | E | E | E | E | E | E | E | G | 3.8 ¹¹⁰ | G | 4.7 ¹¹⁰ | G | G | G | G | G | G | 4.0 ¹¹⁰ | E | E | E | E | E | E |
| 16 | 2.4 ¹¹⁰ | 2.4 ¹¹⁰ | 3.9 ¹¹⁰ | 2.5 ¹¹⁰ | E | 2.1 ¹¹⁰ | E | G | 2.2 ¹¹⁰ | 3.0 ¹¹⁰ | 3.5 ¹²⁰ | 3.1 ¹¹⁰ | 8.4 ¹²⁰ | G | G | 5.0 ¹⁰⁰ | G | 4.6 ¹¹⁰ | E | E | E | E | E | E |
| 17 | E | E | 3.8 ¹¹⁰ | E | 3.8 ¹¹⁰ | E | (2.7) ⁵ | G | 2.3 ¹²⁰ | G | G | 3.5 ¹¹⁰ | 4.1 ¹²⁰ | G | G | G | G | G | E | E | E | E | E | E |
| 18 | 2.5 ¹¹⁰ | E | 2.1 ¹¹⁰ | E | 2.1 ¹¹⁰ | E | 8.4 ¹¹⁰ | G | 3.1 ¹¹⁰ | 3.4 ¹¹⁰ | 2.8 ¹²⁰ | 3.0 ¹³⁰ | G | G | G | 2.9 ¹¹⁰ | G | G | E | E | E | E | E | E |
| 19 | E | E | E | E | E | E | E | G | 2.4 ¹⁰⁰ | 3.4 ¹⁰⁰ | 2.8 ¹⁰⁰ | G | 3.5 ¹²⁰ | G | G | 5.0 ¹⁰⁰ | G | 2.4 ¹³⁰ | E | E | E | E | E | E |
| 20 | E | E | E | E | E | E | E | G | 3.0 ¹¹⁵ | 4.5 ¹¹⁰ | 3.5 ¹¹⁰ | 3.1 ¹⁰⁰ | 3.2 ¹¹⁰ | 6.7 ¹¹⁰ | 3.0 ¹¹⁰ | 3.5 ¹¹⁰ | 3.3 ¹¹⁰ | 3.0 ¹¹⁰ | 2.7 ¹¹⁰ | E | 2.7 ¹¹⁰ | E | 1.2 ¹⁰⁰ | |
| 21 | E | E | E | E | E | E | E | G | 3.1 ¹¹⁰ | 2.8 ¹¹⁰ | 3.4 ¹¹⁰ | (3.3) ⁵ | G | G | 4.9 ¹¹⁰ | 3.7 ¹¹⁰ | G | 3.3 ¹²⁰ | 2.9 ¹²⁰ | 2.4 ¹¹⁰ | E | E | E | |
| 22 | E | E | E | E | E | E | E | G | 4.9 ¹¹⁰ | G | G | G | 4.9 ¹²⁰ | G | G | G | G | 2.8 ¹²⁰ | 2.8 ¹¹⁰ | 3.7 ¹¹⁰ | E | 4.0 ¹¹⁰ | E | E |
| 23 | E | E | E | E | E | E | E | G | 3.2 ¹¹⁰ | 6.8 ¹¹⁰ | 2.7 ¹¹⁰ | 4.3 ¹⁰⁰ | 6.6 ¹¹⁰ | 4.8 ¹¹⁰ | G | G | G | 2.3 ¹²⁰ | 2.8 ¹²⁰ | E | 3.6 ¹¹⁰ | 3.7 ¹¹⁰ | E | E |
| 24 | E | E | E | E | E | 3.0 ¹²⁰ | 2.3 ¹³⁰ | G | 4.7 ¹¹⁰ | 3.5 ¹¹⁰ | G | G | 3.1 ¹¹⁰ | 2.8 ¹¹⁰ | 2.8 ¹¹⁰ | 3.6 ¹¹⁰ | 4.9 ¹¹⁰ | G | 2.7 ¹¹⁰ | 2.2 ¹²⁰ | 2.5 ¹¹⁰ | 2.4 ¹¹⁰ | E | E |
| 25 | E | E | E | E | E | E | E | G | 4.7 ¹¹⁰ | 3.5 ¹¹⁰ | G | G | 3.1 ¹¹⁰ | 2.8 ¹¹⁰ | 2.8 ¹¹⁰ | 3.6 ¹¹⁰ | 4.9 ¹¹⁰ | G | E | E | E | 3.4 ¹¹⁰ | E | E |
| 26 | E | E | E | E | E | E | E | G | 4.7 ¹¹⁰ | 3.5 ¹¹⁰ | 3.0 ¹¹⁰ | G | G | 3.3 ¹²⁰ | G | G | G | 4.7 ¹¹⁰ | E | E | E | E | E | E |
| 27 | E | E | E | E | E | E | E | G | 4.7 ¹¹⁰ | 3.5 ¹¹⁰ | 3.2 ¹²⁰ | 3.3 ¹³⁰ | 3.9 ¹¹⁰ | G | G | G | G | 4.7 ¹¹⁰ | E | E | E | E | E | E |
| 28 | 2.0 ¹¹⁰ | 2.4 ¹¹⁰ | 2.0 ¹¹⁰ | 2.4 ¹¹⁰ | 3.0 ¹²⁰ | 2.2 ¹⁰⁰ | 4.3 ¹²⁰ | G | 3.0 ¹²⁰ | G | G | 5.0 ¹²⁰ | 3.4 ¹¹⁰ | 4.5 ¹¹⁰ | 1.1 ¹²⁰ | G | G | G | E | E | E | E | E | E |
| 29 | E | E | E | E | E | 6.4 ¹³⁰ | G | G | G | 3.5 ¹⁰⁴ | 3.0 ¹¹⁰ | G | 4.3 ¹⁰⁰ | 3.1 ¹¹⁰ | 3.0 ¹¹⁰ | G | 2.7 ¹²⁰ | G | E | E | E | E | E | E |
| 30 | E | E | 2.0 ¹¹⁰ | E | E | E | G | G | G | 3.3 ¹¹⁰ | 3.8 ¹⁰⁰ | 3.8 ¹⁰⁰ | G | 4.8 ¹⁰⁰ | 3.0 ¹⁰⁰ | G | 3.9 ¹⁰⁰ | G | E | E | E | E | E | E |
| 31 | E | E | E | E | E | E | G | 3.9 ¹⁰⁰ | G | G | 3.6 ¹²⁰ | G | G | G | G | G | (3.1) ⁵ | (3.1) ⁵ | E | E | E | E | E | E |
| Median | ** | ** | ** | ** | ** | ** | ** | ** | 2.2 | 3.0 | 3.0 | 3.1 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| Count | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 30 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 21 | 30 | 30 |

04.60

** MEDIAN fEs LESS THAN MEDIAN fOF, OR LESS
THAN LOWER FREQUENCY LIMIT OF RECORDER.

Sweep 1.0 Mc to 25.0 Mc in 0.25 min
Manual ☐ Automatic ☒

National Bureau of Standards
(Institution)
Scaled by E.J.W., J.W.P., L.F.M., J.J.S.
Calculated by E.J.W., J.W.P., L.F.M., J.J.S.

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|--------|----------------|----------------|----------------|----------------|----------------|----------------|--------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|--------|--------|--------|--------|----------------|----------------|----------------|----------------|
| 1 | F ^S | F ^S | F ^S | F ^S | F ^S | 2.21F | 2.44F | 2.4F | 2.6 | 2.4 | 2.3H | 2.5 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3H | 2.4 | 2.7 | 2.2 | 2.3 | 2.1 | 2.1S |
| 2 | 2.1F | 2.1F | 2.0F | 2.0 | 2.1 | 2.2 | 2.3 | 2.5 | 2.5 | 2.5 | 2.3 | 2.1H | 2.3 | 2.4 | 2.2 | 2.4 | 2.3 | 2.3 | 2.4 | 2.7 | 2.2 | 2.3 | 2.2 | 2.3S |
| 3 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.5 | 2.5 | 2.5 | 2.4 | 2.4 | 2.5 | 2.3 | 2.5 | 2.4 | 2.4 | 2.3 | 2.5 | 2.5 | 2.3 | 2.1F | 2.1F | 2.2F |
| 4 | 2.11S | 2.11S | 2.11S | 2.0F | 2.1F | 2.1F | 2.11S | 2.5 | 2.6 | 2.5 | 2.7 | 2.3F | 2.2 | 2.0H | 2.3 | 2.2 | 2.2 | 2.3 | 2.4 | (2.2)S | 2.3 | 2.1F | 2.1F | 2.2F |
| 5 | 2.2F | 2.1F | 2.0F | 2.1 | 2.1F | 2.2F | 2.2 | 2.3 | 2.3F | 2.3 | 2.2 | 1.9 | 2.0 | 2.1 | 1.9H | 2.3 | 2.3 | 2.3S | 2.2 | 2.3 | 2.0 | 2.2F | 2.11S | (2.2)S |
| 6 | (2.0)S | 2.0F | 2.01S | 2.1F | 2.2F | 2.11F | 2.0 | 2.4 | 2.2 | M | G | 2.0 | 1.9H | 2.2 | 2.2 | 2.0H | 2.3 | 2.3 | 2.3 | 2.1 | 2.2 | 2.1 | 2.1 | 2.0 |
| 7 | 2.0 | 1.9 | 2.0 | 2.1 | 2.0 | 2.1 | 2.2F | 2.2 | 2.51P | 2.3F | 2.2F | 2.4 | 2.1 | 2.0 | 2.0 | 2.2F | 2.0 | 2.4 | 2.3 | 2.3 | 2.1 | 2.0 | 2.0 | 2.0 |
| 8 | 2.0F | 1.9F | 2.0F | 2.0F | 2.2F | 2.2F | 2.1F | 2.3F | 2.5 | 2.4 | 2.3 | 2.1 | 2.2 | 2.3 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.2 | 2.1 | 2.1 | 2.0 | 2.0 |
| 9 | 2.1 | 2.0 | (2.0)S | 2.1F | 2.1F | 2.1 | 2.1 | 2.4 | 2.2F | 2.2F | 2.0F | 2.1 | 2.1 | 2.2 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.2F | (2.2)F | 2.2F | 2.0F | 1.9F |
| 10 | 2.0F | 2.0F | A | A | 2.0F | 2.01F | 2.11F | 2.3 | 2.3 | 2.2 | 2.2 | 2.1 | 2.2 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.2 | 2.3 | 2.2 | C | C |
| 11 | 2.01S | J ^S | 2.01S | J ^S | 2.11S | J ^S | 2.11S | 2.4 | 2.2 | P ^S | G | G | 1.5 | 2.1 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.0H | 1.9H |
| 12 | 2.0H | J ^S | 2.0 | 2.0 | 2.1 | 2.2 | 2.0 | 2.3 | 2.2 | 2.3 | 2.2 | 2.2 | 2.1 | 2.0 | 2.1 | 2.1H | 2.3 | 2.3 | 2.3 | 2.2 | 2.3 | 2.1 | 2.0 | 1.9 |
| 13 | J ^A | 1.9F | 2.1 | 2.1F | 2.0 | 2.2 | 2.0 | 2.4 | 2.4 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | 2.2 | 2.4 | 2.4 | 2.4 | 2.2 | 2.1 | 2.1F | 2.1 |
| 14 | 2.0F | 1.9F | 2.1 | 2.2 | 2.2 | 2.1 | 2.5F | 2.5 | 2.4 | 2.3H | 2.3 | 2.5 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2F | 2.2F | 2.4 | 2.3 | 2.2F | (2.1)S | 2.11S | 2.1F |
| 15 | 2.0F | 1.9F | 2.1F | 2.2 | 2.2 | 2.11S | (1.9)S | 2.1F | 2.5 | 2.4 | 1.9 | G | G | 2.0 | 2.0 | 2.0 | 2.2 | 2.3 | 2.2 | 2.2 | 2.2 | 2.1 | 2.0 | 2.01S |
| 16 | (1.8)P | F ^S | F ^S | S ^A | S ^A | 5 ^K | 2.01S | 2.4 | G ^A | G ^A | G ^A | 2.1 | (2.0)S | 1.9 | (1.8)P | 2.1 | 2.1 | 2.3 | 2.2 | 2.2 | 2.2 | 2.1 | 2.0 | 2.1 |
| 17 | 2.21S | 2.21S | 2.21S | F ^S | F ^S | J ^F | 2.21S | 2.4 | 2.3 | (2.2)S | G | G | 1.8 | 1.8 | 2.01P | 2.1 | 2.2 | 2.3 | 2.4 | 2.2 | (2.2)F | 2.01F | F ^S | F ^S |
| 18 | F ^S | F ^S | (1.9)S | 2.01S | 2.01P | 2.01P | 2.11S | 2.51S | 2.5 | 2.3 | 2.0 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.1 | 2.01F |
| 19 | F | F | F | 2.01P | 2.1F | 2.2F | 2.3F | 2.6 | 2.4 | 2.4F | 2.3H | 2.21S | 2.2H | 2.2 | 2.3 | 2.2 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.1 | 2.1 |
| 20 | 2.0F | 2.01P | 2.1F | 2.2F | 2.2 | 2.1 | 2.2 | 2.6 | 2.5 | 2.5 | 2.4 | 2.4 | 2.3 | 2.2 | 2.3 | 2.2 | 2.3 | 2.3 | 2.4 | 2.2 | 2.3 | 2.3 | 2.1 | 2.2 |
| 21 | 2.1 | 2.0 | 2.1 | 2.01P | 2.1 | 2.1F | 2.2 | 2.5 | 2.6 | 2.4 | 2.5 | 2.2 | 2.4 | 2.3 | 2.3 | 2.2 | 2.4 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.1 | 2.2 |
| 22 | 2.1 | 2.1 | 2.0 | 1.9 | 2.11S | 2.0 | 2.21S | 1.9 | 2.1 | (1.6)S | G | G | G | G | G | G | G | 2.0 | 2.0 | 2.0 | 2.21P | 2.01P | 2.01P | 2.21P |
| 23 | F ^R | F ^R | 2.11P | 2.01S | 2.11P | 2.2 | 2.2 | 2.2 | 2.1H | 2.2 | 2.3 | 2.1 | 2.2 | 1.9 | 2.2 | 1.9 | 2.0 | 2.2 | 2.3 | (2.2)S | 2.2 | 2.2 | 2.1 | 2.0F |
| 24 | (2.0)F | F | 1.9F | 2.11S | J ^S | 2.01S | 2.1 | 2.2 | 2.0 | 1.9 | 1.3 | 1.6 | 1.6 | 2.0 | 2.1 | 2.0 | 2.2 | 2.3 | 2.3 | 2.1 | 2.1 | 2.01S | 2.01S | 2.01S |
| 25 | J ^R | F | F ^S | F ^S | F | F ^S | 2.01S | 2.41S | 2.41S | 2.11S | 2.3 | 2.3 | 2.2 | 2.1 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3S | 2.2 | 2.31S | 2.21S | 2.11S | 2.11S |
| 26 | (2.2)S | J ^F | (2.0)S | 2.1 | 2.11S | 2.01S | 2.1 | 2.2 | 2.4 | 2.01S | 1.7H | G | (1.8)S | 2.0 | 1.9 | 2.1 | 2.2 | 2.3 | 2.3 | 2.2 | 2.1 | 2.1 | J ^S | 2.21S |
| 27 | 2.01S | 2.01S | 2.0F | 2.0F | 2.0F | 2.11P | 2.41S | 2.4 | (2.1)S | 2.2 | 2.1 | 1.5 | 2.0 | 2.2 | 1.9 | 2.2 | 2.3 | 2.2 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.0 |
| 28 | 2.0 | 2.1F | 2.11S | (2.0)S | 2.1F | 2.11S | 2.4F | J ^S | 2.4 | 1.9 | 2.1 | 2.2 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | 2.3 | 2.3 | 2.2 | 2.2F | 2.1F |
| 29 | 2.2F | 2.1F | 2.0F | (2.2)S | 2.2F | 2.1F | 2.4 | 2.3 | 2.3 | 2.51S | 2.3 | 2.1 | 2.2 | 2.2 | 2.1 | 2.4H | 2.3 | 2.2 | 2.3 | (2.2)S | 2.3 | (2.2)S | 2.2 | (2.2)F |
| 30 | 2.1 | 2.1 | 2.0 | 2.1 | 2.1 | 2.2 | 2.3 | 2.5 | 2.4 | 2.4 | 2.3 | 2.2 | 2.2 | 2.1 | 2.2 | 2.1 | 2.2 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.0H | 1.9H |
| 31 | 1.8H | 2.0H | 1.9H | 1.9H | F ^S | J ^S | 2.2F | 2.5F | G ^K | 2.0H | G ^K | G ^K | G ^K | G ^K | G ^K | 1.7 | (2.1)F | (2.0)F | (2.2)S | 2.1 | J ^F | J ^F | (2.1)F | 2.11F |
| Median | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.2 | 2.4 | 2.4 | 2.3 | 2.2 | 2.1 | 2.2 | 2.1 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 |
| Count | 25 | 21 | 22 | 25 | 24 | 25 | 31 | 30 | 31 | 29 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 30 | 29 | 28 | 29 |

TABLE 88
Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

IONOSPHERIC DATA

National Bureau of Standards
(Division)
Scales by: E.J.W., J.W.P., L.F.M., J.J.S.
Calculated by: E.J.W., J.W.P., L.F.M., J.J.S.

(M3000)F2, (Unit) March 1955
Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W

Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|--------------------|--------------------|------------------|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1 | F ^s | F ^s | F ^s | F ^s | F ^s | (3.2) ^F | (3.5) ^F | 3.5 ^F | 3.7 | 3.5 ^H | 3.3 ^H | 3.6 ^H | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 ^H | 3.4 | 3.5 ^H | 3.2 | 3.3 | 3.1 | (3.1) ^S |
| 2 | 3.1 ^F | 3.1 ^F | 3.0 ^F | 3.0 | 3.1 | 3.3 | 3.4 | 3.6 | 3.6 | 3.5 | 3.4 | 3.1 ^H | 3.4 | 3.5 | 3.2 | 3.4 | 3.3 | 3.4 | 3.4 | 3.3 | 3.3 | 3.3 | 3.2 | (3.2) ^S |
| 3 | 3.0 | 3.0 | 3.1 | 3.1 | 3.3 | 3.2 | 3.4 | 3.6 | 3.6 | 3.6 | 3.5 | 3.5 ^F | 3.6 | 3.4 | 3.6 | 3.5 | 3.4 | 3.4 | 3.6 | 3.5 ^F | 3.3 | 3.2 | F | 3.2 ^F |
| 4 | (3.1) ^F | (3.1) ^F | (3.1) ^F | 3.0 ^F | 3.1 ^F | 3.1 ^F | (3.1) ^F | 3.6 | 3.7 | 3.6 | 3.8 | 3.3 ^F | 3.3 | 3.0 ^H | 3.4 | 3.2 | 3.3 | 3.4 | 3.5 | (3.3) ^P | 3.3 | 3.1 ^F | 3.2 ^F | 3.2 ^F |
| 5 | 3.3 ^F | 3.1 ^F | 3.1 ^F | 3.2 | 3.1 ^F | 3.2 ^F | 3.2 | 3.3 | 3.4 ^F | 3.4 | 3.3 | 2.8 | 3.0 | 3.1 | (3.4) ^H | 3.3 | 3.4 | (3.3) ^P | 3.2 | 3.4 | 3.1 | 3.2 ^F | (3.1) ^S | (3.2) ^S |
| 6 | (3.0) ^F | 3.0 ^F | (3.0) ^F | 3.2 ^F | 3.3 ^F | (3.2) ^F | 3.0 | 3.5 | 3.2 | 3.1 | G | 3.0 | 2.8 ^H | 3.2 | 3.2 | 3.0 ^H | 3.4 | 3.4 | 3.3 | 3.1 | 3.2 | 3.1 | 3.1 | 3.0 |
| 7 | 3.0 | 2.9 | 3.0 | 3.1 | 3.0 | 3.1 | 3.2 | 3.2 | (3.5) ^P | 3.4 ^F | 3.2 | 3.5 | 3.2 | 3.0 | 3.0 | 3.3 ^F | 3.0 | 3.5 | 3.3 | 3.3 | 3.1 | 3.0 | 3.0 | 3.0 |
| 8 | 3.0 ^F | (2.9) ^F | 3.0 ^F | (3.0) ^F | 3.2 ^F | 3.2 ^F | 3.2 ^F | 3.5 ^F | 3.6 | 3.5 | 3.3 ^F | 3.2 | 3.3 | 3.2 | 3.2 | 3.3 | 3.4 | 3.3 | 3.4 | 3.3 | 3.2 | 3.2 | 3.0 | 3.0 |
| 9 | 3.1 | 3.0 | (3.0) ^F | 3.1 | 3.2 ^F | 3.1 | 3.1 | 3.5 | 3.2 ^F | 3.3 ^F | 3.0 ^F | 3.1 | 3.1 | 3.2 | 3.0 | 3.0 | 3.1 | 3.1 | 3.2 | 3.2 ^F | (3.2) ^F | 3.2 ^F | 3.0 ^F | 2.9 ^F |
| 10 | (3.0) ^F | 3.0 ^F | A | A | 3.0 ^F | (3.0) ^F | (3.1) ^F | 3.3 | 3.3 | 3.3 | 3.3 | 3.2 | 3.3 | 3.4 | 3.3 | 3.2 | 3.3 | 3.3 | 3.1 | 3.2 | 3.3 | 3.3 | 3.2 | 3.2 |
| 11 | (3.0) ^F | J ^s | (3.0) ^F | J ^s | (3.1) ^F | J ^s | (3.1) ^F | 3.5 | 3.2 | P ^s | G | G | 2.8 ^K | 3.1 ^K | 3.3 ^K | 3.3 ^K | 3.3 ^K | 3.4 ^K | 3.4 ^K | 3.2 ^K | 3.3 ^K | 3.2 ^K | 3.0 ^K | 2.9 ^K |
| 12 | 3.0 ^K | J ^s | 3.0 | 3.0 | 3.1 | 3.2 | 3.0 | 3.4 | 3.2 | 3.4 | 3.2 | 3.2 | 3.2 | 3.3 | 3.4 | 3.3 | 3.4 | 3.3 | 3.4 | 3.2 | 3.3 | 3.1 | 3.0 | 2.9 |
| 13 | J ^A | 2.9 ^K | 3.1 | 3.1 ^F | 3.0 | 3.2 | 3.0 | 3.4 | 3.5 | 3.3 | 3.2 | 3.2 | 3.2 | 3.3 | 3.4 | 3.3 | 3.3 | 3.5 | 3.5 | 3.5 | 3.3 | 3.2 | 3.2 | 3.1 |
| 14 | 3.0 ^F | 3.1 ^F | 3.2 | 3.2 | 3.3 | 3.2 | 3.6 | 3.6 | 3.5 | 3.4 ^H | 3.4 | 3.6 | 3.4 | 3.3 | 3.3 | 3.3 | 3.3 | 3.2 ^F | 3.5 | 3.4 | 3.2 ^F | (3.1) ^S | (3.1) ^S | 3.1 ^F |
| 15 | 3.0 ^F | 2.9 ^F | 3.2 ^F | 3.2 ^F | (3.1) ^F | (2.9) ^F | 3.2 ^F | 3.6 | 3.5 | 3.2 | 2.9 | G | G ^K | 3.0 ^K | 3.0 ^K | 3.0 ^K | 3.2 ^K | 3.3 ^K | 3.3 ^K | 3.3 ^K | 3.3 ^K | 3.1 ^K | 3.0 ^K | (3.0) ^F |
| 16 | (2.7) ^F | F ^s | F ^s | S ^K | S ^K | S ^K | (3.0) ^F | 3.5 ^K | G ^K | G ^K | G ^K | 3.1 ^K | (3.0) ^F | 2.9 ^K | (2.7) ^F | 3.2 ^K | 3.2 ^K | 3.3 ^K | (3.5) ^S | 3.0 ^K | 3.2 ^K | 3.2 ^K | 3.2 ^K | 3.1 ^K |
| 17 | (3.2) ^S | (3.2) ^K | (3.2) ^K | F ^s | F ^s | J ^F | (3.3) ^F | 3.5 | 3.3 | (3.3) ^P | G | G | 2.7 ^K | 2.8 ^K | (3.0) ^K | 3.2 ^K | 3.3 ^K | 3.4 ^K | 3.5 ^K | (3.2) ^K | (3.2) ^K | (3.0) ^K | F ^s | F ^s |
| 18 | F ^s | F ^s | (2.9) ^P | (3.0) ^S | (3.0) ^F | (3.1) ^F | (3.1) ^F | 3.6 | 3.4 | 3.0 | 3.2 | 3.2 | 3.2 | 2.9 | 3.1 | 3.0 | 3.2 | 3.4 | 3.5 | 3.3 | 3.4 | (3.0) ^P | 3.1 ^F | (3.0) ^F |
| 19 | F ^s | F ^s | F ^s | F ^s | F ^s | F ^s | (3.3) ^F | 3.7 | 3.5 | 3.5 ^F | 3.4 ^H | (3.2) ^P | (3.2) ^F | 3.2 ^H | 3.2 | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | (3.3) ^F | (3.3) ^F | (3.0) ^F | (3.0) ^F |
| 20 | 3.0 ^F | (3.0) ^F | 3.1 ^F | 3.2 ^F | 3.3 | 3.2 | 3.3 | 3.7 | 3.6 | 3.6 | 3.5 | 3.5 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 | 3.5 | 3.3 | 3.3 | 3.4 | 3.2 | 3.2 |
| 21 | 3.1 | 3.0 | 3.1 | (3.0) ^F | 3.1 | 3.1 ^F | 3.3 | 3.6 | 3.7 | 3.5 | 3.5 | 3.2 | 3.5 | 3.3 | 3.4 | 3.3 | 3.4 | 3.4 | 3.5 | 3.4 | 3.3 | 3.2 | 3.3 | 3.3 |
| 22 | 3.1 | 3.1 | 3.0 | 2.9 | (3.2) ^S | 3.0 | (3.3) ^S | 2.9 | 3.1 | (2.9) ^J | G | G | G | G ^K | G ^K | G ^K | G ^K | 3.0 ^K | 3.0 ^K | 3.0 ^K | (3.3) ^P | (3.3) ^P | 3.0 ^K | (3.2) ^B |
| 23 | F ^R | F ^R | (3.1) ^F | (3.0) ^F | (3.1) ^F | (3.1) ^F | 3.3 | 3.2 | (3.1) ^H | 3.2 | 3.4 | 3.1 | 3.2 | 2.9 | 3.2 | 2.9 | 3.0 | 3.2 | 3.3 | (3.2) ^S | 3.3 | 3.2 | 3.1 | (3.0) ^F |
| 24 | (3.0) ^F | F ^s | (2.9) ^F | (3.1) ^S | T ^S | (3.0) ^S | 3.2 | 3.3 | 3.0 | 2.9 | 2.7 | 2.4 | 2.5 ^K | 3.0 ^K | 3.2 ^K | 3.0 ^K | 3.2 ^K | 3.4 ^K | 3.4 ^K | 3.2 ^K | (3.1) ^S | (3.1) ^S | (3.0) ^S | (3.0) ^S |
| 25 | J ^K | F ^s | F ^s | F ^s | F ^s | F ^s | (3.0) ^S | (3.4) ^S | (3.5) ^P | (3.1) ^F | 3.3 | 3.3 | 3.3 | 3.1 | 3.3 | 3.3 | 3.3 | 3.4 | (3.4) ^F | 3.2 | (3.4) ^P | (3.2) ^S | (3.1) ^S | (3.2) ^F |
| 26 | (3.3) ^F | J ^F | (3.0) ^F | 3.1 | (3.1) ^F | (3.0) ^J | 3.1 | 3.3 | 3.5 | 3.2 | 2.6 ^H | G | (2.7) ^S | 3.0 ^K | 2.9 ^K | 3.2 ^K | 3.2 ^K | 3.3 | 3.4 | 3.2 ^K | 3.1 ^K | J ^K | (3.2) ^S | (3.2) ^S |
| 27 | (3.0) ^S | (3.0) ^S | 3.0 ^F | 3.0 ^F | 3.0 ^F | (3.1) ^F | (3.5) ^S | 3.5 | (3.1) ^F | 3.2 | 3.1 | 2.8 | 3.0 | 3.2 | 2.9 | 3.2 | 3.3 | 3.2 | 3.3 | 3.2 | 3.2 | 3.1 | J ^K | (3.2) ^S |
| 28 | 3.0 | 3.1 ^F | (3.1) ^F | (3.0) ^F | 3.1 ^F | (3.1) ^F | 3.4 ^F | J ^s | 3.5 | 2.9 | 3.1 | 3.2 | 3.4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.4 | 3.4 | 3.3 | 3.3 ^F | 3.1 ^F |
| 29 | 3.2 ^F | 3.1 ^F | 3.0 ^F | (3.2) ^F | 3.2 ^F | 3.1 ^F | 3.5 | 3.4 | 3.3 | (3.6) ^J | 3.4 | 3.1 | 3.3 | 3.2 | 3.2 | 3.4 ^H | 3.3 | 3.2 | 3.4 | (3.3) ^S | 3.4 | (3.3) ^S | 3.2 | (3.2) ^F |
| 30 | 3.2 | 3.2 | 3.0 | 3.1 | 3.1 | 3.3 | 3.4 | 3.5 | 3.5 | 3.5 | 3.3 | 3.2 | 3.2 | 3.1 | 3.2 | 3.1 | 3.2 | 3.1 | 3.2 | 3.3 | 3.2 | 3.2 | 3.0 ^K | 2.9 ^K |
| 31 | 2.8 ^K | 3.0 ^K | 2.9 ^K | 2.9 ^K | F ^R | J ^R | 3.2 ^K | 3.6 ^K | G ^K | (3.0) ^K | G ^K | G ^K | G ^K | G ^K | G ^K | 2.6 ^K | (3.1) ^K | (3.0) ^K | (3.2) ^F | 3.2 ^K | J ^K | J ^K | (3.1) ^F | (3.1) ^F |
| Median | 3.0 | 3.0 | 3.0 | 3.1 | 3.1 | 3.2 | 3.2 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.2 | 3.1 | 3.2 | 3.2 | 3.3 | 3.3 | 3.4 | 3.3 | 3.3 | 3.2 | 3.1 | 3.1 |
| Count | 25 | 21 | 26 | 25 | 24 | 25 | 31 | 30 | 31 | 27 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 30 | 24 | 28 | 27 |

Observed at (M3000)E1 (Unit) March, 1955
Washington, D.C.
Lat 38.7°N, Long 77.1°W

IONOSPHERIC DATA

National Bureau of Standards
(Institution)
Scaled by: EJW, JWP, LFM, JJS
Calculated by: EJW, JWP, LFM, JJS

| 75°W | | | | | | | | | | | | | | | | | | | | | | | | | Mean Time | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|----|----|----|----|----|----|----|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----|----|----|----|----|----|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | Q | L | L | L | 40 | 37 ^H | 36 ^H | 37 ^H | L | (38) ^L | Q | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | Q | L | L | 37 ^H | 37 ^H | 37 ^H | 37 ^H | 37 ^H | L | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | Q | L | L | L | L | 36 | 38 ^H | (38) ^L | L | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | L | L | L | L | 37 | 39 | L | L | 36 ^H | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | L | L | 37 | 38 ^H | 42 | 40 ^H | 36 | 37 | 36 ^H | 37 | Q | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | L | (38) ^L | M | 36 ^H | 37 ^H | 36 | 38 | 36 | 36 | 36 | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | Q | L | 38 | 39 | 37 | 36 ^H | 36 | 36 | 36 | 35 | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | Q | 37 | H | 39 | 39 | 37 ^H | 38 ^H | 37 | 36 | (38) ^L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | Q | L | 37 ^H | 37 | 37 | 37 | 37 | 35 | 34 | 36 | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | Q | L | 36 | 37 | 36 ^H | 36 ^H | 36 ^H | 38 ^H | 36 | 35 | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | Q | 36 | 37 | 37 ^H | 38 ^H | (39) ^H | 38 ^H | 37 ^H | 37 ^H | 39 ^H | L | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | Q | L | 38 ^H | 38 ^H | 38 ^H | 38 ^H | 37 | 36 | (38) ^L | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | Q | L | 37 | 38 ^H | 37 ^H | 37 ^H | 37 ^H | 37 | 36 | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | L | L | 37 | 40 | (41) ^H | 40 | 37 ^H | 38 | 36 | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | L | L | 37 | 39 | 40 | 38 ^H | (38) ^L | 37 ^H | 38 ^H | 36 ^H | L | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | K | Q | 37 ^H | 38 ^H | 41 ^H | (39) ^H | 38 ^H | 38 ^H | 38 ^H | 38 ^H | L | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | L | (39) ^L | L | 39 ^H | 38 | 40 | 38 ^H | 40 | 37 ^H | 38 ^H | L | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | Q | L | 39 | 38 | 37 ^H | 38 | 37 | 36 | 36 | 36 | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | Q | L | L | 40 | 39 ^H | 39 ^H | (38) ^L | 40 | L | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | L | L | (38) ^L | 38 | 39 | 39 ^H | 38 | (37) ^L | (36) ^L | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | L | L | (39) ^L | (39) ^H | (39) ^H | 38 | 39 | 37 | L | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | 36 | 35 | 38 | (39) ^F | (38) ^F | 37 ^H | 37 ^H | 37 ^H | 37 ^H | 36 ^H | (37) ^L | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | Q | 39 ^H | 40 | 38 | 37 ^H | 38 | 37 | 35 ^H | 35 | 34 | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | Q | 37 | 38 ^H | 38 ^H | 40 | 40 ^H | 39 ^H | 38 ^H | 38 ^H | (36) ^L | L | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | Q | Q | 38 ^H | 34 | 41 | 39 | 38 | 36 ^H | 37 | (40) ^L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | L | 38 | 37 ^H | 39 ^H | 41 ^H | 37 | 37 ^H | 38 ^H | 37 ^H | 38 ^H | L | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | L | 38 | 38 | 39 | 39 ^H | 39 | 38 ^H | 37 | 35 | 36 ^H | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | L | L | 36 ^H | 39 ^H | 38 ^H | 37 ^H | 37 | 37 ^H | 36 | (36) ^L | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | L | 36 | 38 ^H | 37 | 40 | 39 ^H | 38 ^H | 38 ^H | 39 ^H | 38 | L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | Q | L | 40 | 39 | 37 ^H | 38 ^H | 37 | 37 ^H | 36 ^H | 35 | (37) ^L | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | Q | K | 38 ^F | 40 ^F | 39 ^H | 40 ^H | 39 ^H | 37 ^H | 36 ^H | 36 ^F | 37 ^F | L | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Median | | | | | | | | -- | 38 | 38 | 39 | 39 | 38 | 38 | 37 | 36 | 36 | -- | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Count | | | | | | | | 1 | 13 | 24 | 28 | 30 | 31 | 30 | 30 | 26 | 23 | 3 | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Collected by: E.J.W., J.W.P., L.F.M., J.J.S.

Lat 38.7°N, Long 77.1°W

04, 60

Sweep 10, Mc to 250 Mc in 0.225 min

01, 60

Sweep 1Q Mc to 250 Mc in 0.225 min

Manual ☐ Automatic ☒

TABLE 90
Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

IONOSPHERIC DATA

National Bureau of Standards
(Institution)

Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by: E.J.W., J.W.P., L.F.M., J.J.S.

(M1500)E (Unit) March 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|--------|----|----|----|----|----|----|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----|----|----|----|----|----|
| 1 | | | | | | | S | 4.4 ^H | (4.5) ^P | 4.3 ^H | (4.4) ^P | 4.3 | 4.4 | 4.4 ^H | 4.3 | 4.4 ^H | 4.3 | 4.4 | | | | | | |
| 2 | | | | | | | S | 4.3 | 4.4 ^F | 4.3 ^H | 4.3 ^H | 4.3 ^H | 4.3 | 4.3 ^H | 4.3 | 4.4 | 4.3 | 4.4 | | | | | | |
| 3 | | | | | | | S | 4.4 ^H | 4.4 ^H | (4.4) ^S | (4.4) ^P | (4.4) ^P | (4.4) ^P | (4.5) ^P | (4.4) ^P | (4.4) ^P | (4.4) ^P | 4.4 | | | | | | |
| 4 | | | | | | | S | 4.4 | (4.2) ^R | 4.2 | 4.2 | 4.4 | (4.4) ^R | (4.4) ^R | (4.4) ^R | (4.4) ^R | 4.3 | S | | | | | | |
| 5 | | | | | | | S | 4.4 | 4.4 | R | R | (4.3) ^R | 4.2 | 4.4 ^H | 4.4 | 4.4 | 4.4 | (4.3) ^H | | | | | | |
| 6 | | | | | | | 4.4 | 4.4 | M | 4.4 ^H | 4.3 ^H | R | 4.3 | 4.3 ^H | 4.3 ^H | 4.3 | 4.4 | 4.4 ^H | | | | | | |
| 7 | | | | | | | S | 4.3 ^H | 4.4 | 4.4 ^H | 4.4 ^H | 4.4 | 4.4 | 4.4 ^H | 4.4 ^H | 4.4 | 4.4 | 4.4 | | | | | | |
| 8 | | | | | | | 4.4 | R | R | R | R | 4.3 | 4.2 | 4.3 | 4.2 | 4.3 | (4.3) ^S | | | | | | | |
| 9 | | | | | | | (4.2) ^S | 4.3 ^H | 4.4 | 4.3 ^F | 4.3 ^H | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 ^H | 4.3 | | | | | | |
| 10 | | | | | | | 4.1 | (4.3) ^P | 4.4 | (4.4) ^S | 4.4 | (4.4) ^R | 4.4 | 4.4 | 4.2 | 4.3 | 4.4 | 4.3 | | | | | | |
| 11 | | | | | | | 4.3 | 4.3 | 4.3 | 4.5 | R | (4.3) ^R | 4.3 ^K | 4.3 ^K | 4.3 ^K | 4.3 ^K | 4.5 ^M | 4.5 ^K | K | | | | | |
| 12 | | | | | | | 4.5 | (4.3) ^H | R | R | (4.2) ^R | (4.2) ^R | 4.3 | 4.3 | 4.3 ^H | 4.3 ^H | 4.4 | 4.4 | | | | | | |
| 13 | | | | | | | S | 4.5 | (4.4) ^R | 4.3 ^H | (4.4) ^R | 4.2 | (4.3) ^R | 4.3 | 4.3 | 4.4 | 4.4 | (4.4) ^P | | | | | | |
| 14 | | | | | | | S | 4.4 | (4.4) ^P | (4.4) ^P | 4.2 | 4.2 | 4.2 | 4.2 | 4.3 | 4.3 | 4.3 | R | | | | | | |
| 15 | | | | | | | (4.4) ^S | 4.4 ^H | R | R | 4.4 | 4.3 | 4.3 | 4.3 ^K | 4.3 ^K | 4.4 ^K | (4.5) ^P | (4.2) ^H | K | | | | | |
| 16 | | | | | | K | (4.4) ^K | R | K | (4.4) ^R | 4.2 ^K | 4.3 ^K | 4.3 ^K | 4.4 ^K | 4.4 ^K | 4.5 ^K | 4.4 ^K | 4.4 ^K | K | | | | | |
| 17 | | | | | | | (4.3) ^S | 4.5 ^H | 4.3 ^H | 4.4 | (4.3) ^R | 4.3 ^K | 4.3 ^H | 4.3 ^K | 4.3 ^K | 4.4 ^K | 4.4 ^K | S | K | | | | | |
| 18 | | | | | | | 4.4 | 4.4 | 4.4 | 4.3 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.3 | 4.3 | | | | | | |
| 19 | | | | | | | S | 4.4 | S | (4.4) ^R | 4.1 | 4.4 | (4.4) ^R | 4.3 | 4.4 | 4.4 | 4.4 | 4.4 | | | | | | |
| 20 | | | | | | | 4.4 | 4.4 ^F | R | 4.4 | 4.4 | 4.4 | (4.4) ^R | 4.4 | 4.4 | 4.4 | R | R | | | | | | |
| 21 | | | | | | | (4.4) ^S | (4.4) ^R | 4.4 | 4.4 | 4.4 | 4.4 | 4.3 | 4.3 | 4.3 | 4.4 | 4.4 | 4.4 | | | | | | |
| 22 | | | | | | | 4.2 | (4.4) ^S | (4.4) ^S | (4.4) ^H | 4.5 ^H | 4.3 ^H | 4.2 ^K | 4.2 ^K | 4.2 ^K | 4.2 ^K | 4.3 ^K | 4.4 ^K | K | | | | | |
| 23 | | | | | | | S | R | 4.4 ^H | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.5 | (4.4) ^S | 4.4 | | | | | | |
| 24 | | | | | | | (4.4) ^S | (4.4) ^R | 4.4 | (4.4) ^P | R | 4.1 | 4.1 | 4.1 ^K | 4.2 ^K | 4.3 | 4.3 ^K | 4.4 ^K | K | | | | | |
| 25 | | | | | | | R | 4.4 | 4.5 ^H | 4.3 ^H | 4.3 ^H | (4.3) ^P | 4.4 | 4.2 ^H | (4.4) ^R | (4.4) ^R | (4.4) ^R | 4.4 ^H | | | | | | |
| 26 | | | | | | | 4.3 ^H | 4.2 ^H | 4.3 ^H | R | 4.3 ^H | 4.3 ^H | 4.3 ^K | 4.2 ^K | 4.2 ^K | 4.3 ^K | 4.3 ^K | 4.3 ^K | K | | | | | |
| 27 | | | | | | | (4.3) ^H | R | 4.5 ^H | 4.4 ^H | 4.5 | 4.3 ^H | 4.2 | 4.3 | 4.3 | 4.3 ^H | 4.3 | 4.2 | S | | | | | |
| 28 | | | | | | | 4.4 | 4.3 | 4.3 ^H | 4.4 ^H | 4.4 ^F | 4.3 ^F | 4.3 ^F | 4.4 | 4.3 | 4.4 | 4.4 | 4.5 | S | | | | | |
| 29 | | | | | | S | 4.3 ^H | 4.3 ^H | (4.5) ^R | 4.5 ^H | (4.5) ^S | 4.3 ^H | (4.4) ^P | (4.3) ^R | 4.3 ^H | (4.3) ^H | (4.3) ^H | 4.4 ^H | S | | | | | |
| 30 | | | | | | S | 4.2 | 4.4 | 4.4 | 4.5 | 4.2 ^H | 4.3 ^H | 4.3 ^H | 4.3 | 4.3 | 4.3 | 4.3 | 4.4 | S | | | | | |
| 31 | | | | | | S | 4.5 ^K | 4.4 ^K | 4.2 ^K | R | (4.4) ^M | (4.4) ^K | (4.4) ^K | 4.5 ^K | (4.4) ^P | (4.5) ^H | 4.4 ^K | 4.2 | S | | | | | |
| Median | | | | | | | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.4 | 4.4 | | | | | | |
| Count | | | | | | | 20 | 28 | 24 | 25 | 27 | 30 | 31 | 31 | 31 | 31 | 30 | 27 | | | | | | |

Sweep 1.0 Mc to 25.0 Mc in 0.225 min

Manual ☐ Automatic ☒

Table 91

Ionospheric Storminess at Washington, D. C.March 1955

| Day | Ionospheric character* | | Principal storms | | Geomagnetic character** | |
|-----|------------------------|-----------|------------------|------------|-------------------------|-----------|
| | 00-12 GCT | 12-24 GCT | Beginning GCT | End GCT | 00-12 GCT | 12-24 GCT |
| 1 | 2 | 2 | | | 1 | 1 |
| 2 | 2 | 1 | | | 1 | 0 |
| 3 | 1 | 1 | | | 1 | 1 |
| 4 | 1 | 1 | | | 1 | 1 |
| 5 | 0 | 3 | | | 3 | 2 |
| 6 | 1 | 3 | | | 3 | 2 |
| 7 | 1 | 1 | | | 3 | 3 |
| 8 | 1 | 2 | | | 3 | 3 |
| 9 | 2 | 3 | | | 3 | 3 |
| 10 | 3 | 2 | | | 4 | 4 |
| 11 | 1 | 4 | 1200 | ---- | 3 | 3 |
| 12 | 3 | 1 | ---- | 0100 | 4 | 3 |
| 13 | 3 | 1 | | | 2 | 3 |
| 14 | 0 | 2 | | | 2 | 3 |
| 15 | 1 | 5 | 1200 | ---- | 4 | 2 |
| 16 | 4 | 4 | ---- | ---- | 3 | 2 |
| 17 | 3 | 5 | ---- | 0100 | 4 | 2 |
| | | | 1200 | 2300 | | |
| 18 | 3 | 2 | | | 2 | 3 |
| 19 | 2 | 2 | | | 1 | 1 |
| 20 | 1 | 2 | | | 2 | 2 |
| 21 | 1 | 2 | | | 2 | 2 |
| 22 | 1 | 6 | 1300 | ---- | 3 | 4 |
| 23 | 3 | 1 | ---- | 0100 | 2 | 3 |
| 24 | 3 | 5 | 1200 | ---- | 3 | 2 |
| 25 | 3 | 2 | ---- | 0000 | 2 | 2 |
| 26 | 1 | 4 | 1300 | ---- | 3 | 2 |
| 27 | 2 | 2 | ---- | 0000 | 2 | 2 |
| 28 | 1 | 2 | | | 2 | 1 |
| 29 | 2 | 2 | | | 1 | 1 |
| 30 | 1 | 3 | 2200 | ---- | 1 | 3 |
| 31 | 4 | 6 | ---- | *** | 6 | 4 |

*Ionosphere character figure (I-figure) for ionospheric storminess at Washington, D. C., during 12-hour period, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

**Average for 12 hours of Cheltenham, Maryland, geomagnetic K-figures on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

***Storm ending at 0100 GCT on April 1, 1955.

----Dashes indicate continuing storm.

Table 92Sudden Ionosphere Disturbances Observed at Washington, D. C.March 1955

No sudden ionosphere disturbances were observed during the
month of March.

Note: Observers are invited to send to the CRPL information on times of beginning and end of sudden ionosphere disturbances for publication as above. Address letters to the Central Radio Propagation Laboratory, National Bureau of Standards, Boulder, Colorado; Attention: Mr. Vaughn Agy.

Table 93a

Radio Propagation Quality Figures

(Including Comparisons with Short-Term and Advance Forecasts)

North Atlantic Path - February 1955

| Day | North Atlantic 6-hourly quality figures | | | | Short-term forecasts issued about one hour in advance of: | | | | Whole day quality index | Advance forecasts (J-reports) for whole day; issued in advance by: | | | Geomag- netic K _{Ch} | |
|-------------------|---|----------------|----------------|----------------|---|-----|----|----|----------------------------------|---|-------------|--------------|-------------------------------------|-----|
| | 00 to 06 | 06 to 12 | 12 to 18 | 18 to 24 | 00 | 06 | 12 | 18 | | 1-4 days | 4-7 days | 8-25 days | Half Day (1) (2) | |
| 1 | 6 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 6 | 6 | | 0 | 1 |
| 2 | 6 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 6 | 6 | | 1 | 2 |
| 3 | 7 | 6 | 7 | 7 | 6 | 5 | 6 | 6 | 7 | 6 | 6 | | 3 | 1 |
| 4 | 6 | 6 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | 3 | (4) |
| 5 | 6 | 5 | 7 | 7 | 5 | 5 | 7 | 7 | 6 | 6 | 6 | | 3 | 3 |
| 6 | 6 | 6 | 7 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | | 3 | 3 |
| 7 | 5 | 5 | 7 | 7 | 6 | 5 | 7 | 6 | 6 | 6 | 6 | | 3 | 2 |
| 8 | 6 | 6 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 6 | 6 | | 2 | 3 |
| 9 | 6 | 6 | 7 | 6 | 5 | 6 | 7 | 7 | 6 | 6 | 6 | | 3 | 2 |
| 10 | 6 | 5 | 7 | 6 | 6 | 6 | 7 | 7 | 6 | 6 | 6 | | 2 | 1 |
| 11 | 6 | 6 | 7 | 6 | 6 | 6 | 7 | 7 | 6 | 6 | 6 | | 1 | 3 |
| 12 | 5 | 5 | 7 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | | 3 | 2 |
| 13 | 5 | 5 | 7 | 7 | 5 | 5 | 7 | 6 | 6 | 6 | 6 | | 3 | 2 |
| 14 | 6 | 5 | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | 2 | 2 |
| 15 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 6 | 6 | 6 | | 3 | 1 |
| 16 | 5 | 5 | 7 | 7 | 6 | 5 | 7 | 7 | 6 | 6 | 6 | | 1 | 2 |
| 17 | 6 | 6 | 7 | 6 | 6 | 6 | 7 | 7 | 6 | 6 | 6 | | 2 | 1 |
| 18 | 5 | 5 | 7 | 6 | 6 | 6 | 7 | 7 | 6 | 7 | 6 | | 2 | 1 |
| 19 | 6 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | | 2 | 2 |
| 20 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 6 | 7 | 7 | | 2 | 2 |
| 21 | 6 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | | 3 | 2 |
| 22 | 6 | 5 | 7 | 7 | 6 | 5 | 7 | 7 | 6 | 7 | 6 | | 3 | 2 |
| 23 | 5 | 6 | 6 | 6 | 6 | 5 | 7 | 7 | 6 | 7 | 6 | | (4) | 3 |
| 24 | 5 | 5 | 7 | 6 | 5 | 5 | 7 | 6 | 6 | 7 | 6 | | 2 | 2 |
| 25 | 5 | 5 | 7 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | | 3 | 1 |
| 26 | 5 | 5 | 7 | 7 | 6 | 5 | 7 | 6 | 6 | 6 | 6 | | 3 | 2 |
| 27 | 6 | 5 | 7 | 7 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | | 1 | 2 |
| 28 | 5 | 5 | 6 | 6 | 6 | (4) | 6 | 5 | 5 | 6 | 6 | | (4) | 3 |
| Score: | | | | | | | | | | | | | | |
| | | | | | P | 14 | 18 | 20 | 15 | | | | 18 | 21 |
| Quiet Periods | | | | | S | 14 | 10 | 8 | 13 | | | | 10 | 7 |
| | | | | | U | 0 | 0 | 0 | 0 | | | | 0 | 0 |
| | | | | | F | 0 | 0 | 0 | 0 | | | | 0 | 0 |
| Disturbed Periods | | | | | P | 0 | 0 | 0 | 0 | | | | 0 | 0 |
| | | | | | S | 0 | 0 | 0 | 0 | | | | 0 | 0 |
| | | | | | U | 0 | 0 | 0 | 0 | | | | 0 | 0 |
| | | | | | F | 0 | 0 | 0 | 0 | | | | 0 | 0 |

Scales:

Q-scale of Radio Propagation Quality

- (1) - useless
- (2) - very poor
- (3) - poor
- (4) - poor to fair
- 5 - fair
- 6 - fair to good
- 7 - good
- 8 - very good
- 9 - excellent

K-scale of Geomagnetic Activity

0 to 9, 9 representing the greatest disturbance; K_{Ch} ≥ 4 indicates significant disturbance, enclosed in () for emphasis

Scoring: (beginning October 1952)

- P - Perfect: forecast quality equal to observed
- S - Satisfactory: (beginning October 1952) forecast quality one grade different from observed
- U - Unsatisfactory: forecast quality two or more grades different from observed when both forecast and observed were ≥ 5, or both ≤ 5
- F - Failure: other times when forecast quality two or more grades different from observed

Symbols:

X - probable disturbed date

Note: All times are UT (Universal Time or GCT)

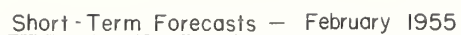


Table 94a

Coronal observations at Climax, Colorado (5303A), east limb
(Absolute values in millionths of the brightness of one angstrom at the center of the solar disk)

| Date | Degrees north of the solar equator | | | | | | | | | | | | | | | | | | | 0° | Degrees south of the solar equator | | | | | | | | | | | | | | | | | | |
|---------|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|----|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|
| UT | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | | | |
| 1955 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mar 1.7 | - | - | - | - | - | - | 1 | 2 | 1 | 2 | 2 | 5 | 2 | 1 | - | - | - | - | - | - | - | - | - | 2 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | | |
| 2.6 | - | - | - | - | - | - | 2 | 1 | 1 | 2 | 3 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | | |
| 3.6 | - | - | - | - | - | - | - | 1 | 1 | 2 | 3 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 2 | 1 | - | - | - | - | - | - | - | - | - | | |
| 4.6 | - | - | - | - | - | - | 1 | - | 1 | 3 | 4 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 5.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6.6 | - | - | - | - | - | - | 1 | 1 | 1 | 3 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 7.6 | - | - | - | - | - | - | 1 | 1 | 3 | 3 | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | | |
| 8.7 | - | - | - | - | - | 2 | 3 | 9 | 6 | 6 | 5 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 9.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14.6 | - | - | - | - | - | - | - | - | - | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 | 2 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | | | |
| 15.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18.6 | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 2 | 1 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| 19.6 | - | - | - | - | - | - | - | - | - | - | - | 1 | 2 | 4 | 18 | 18 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 20.6 a | X | X | X | X | - | - | - | - | - | - | - | 3 | 9 | 15 | 9 | 5 | 2 | - | - | - | - | - | - | - | - | X | X | X | X | X | X | X | X | X | X | X | X | | |
| 21.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26.6a | - | - | - | - | - | - | - | - | - | - | 1 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| 27.6 | - | - | - | - | - | 1 | - | - | 1 | 1 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 28.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29.9 | - | - | - | - | - | - | 1 | 1 | 1 | - | - | 1 | 1 | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | | |
| 30.8 | - | - | - | - | - | - | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 31.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Table 95a

Coronal observations at Climax, Colorado (6374A), east limb
(Absolute values in millionths of the brightness of one angstrom at the center of the solar disk)

[illegible]

Table 96a

Coronal observations at Climax, Colorado (6702A), east limb

(Absolute values in millionths of the brightness of one angstrom at the center of the solar disk)

[illegible]

Table 97a

Coronal observations at Sacramento Peak, New Mexico (5303A), east limb

(Arbitrary Scale)

[illegible]

Table 96b

Coronal observations at Climax, Colorado (6702A), west limb

(Absolute values in millionths of the brightness of one angstrom at the center of the solar disk)

| Date UT | Degrees south of the solar equator | | | | | | | | | | | | | | | | 0° | Degrees north of the solar equator | | | | | | | | | | | | | | | | | | | | |
|------------|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------------------------------------|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | | 10 | 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | |
| 1955 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mar 1.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 2.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 3.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 4.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 5.x | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 6.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 7.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 8.7 | - | - | - | - | - | - | - | - | - | 1 | 1 | 2 | 2 | 2 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 9.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 15.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 19.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 20.6a | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | X | X | | | |
| 21.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26.6a | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 27.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 28.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 30.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 31.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Table 97b

Coronal observations at Sacramento Peak, New Mexico (5303A), west limb

(Arbitrary Scale)

| Date UT | Degrees south of the solar equator | | | | | | | | | | | | | | | | | | | 0° | Degrees north of the solar equator | | | | | | | | | | | | | | | | | | |
|------------|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|----|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| | 90 | 85 | 80 | 75 | 70 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | 5 | | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | | |
| 1955 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mar 1.7 | - | - | - | - | - | - | - | - | - | 2 | 2 | 3 | 4 | 5 | 4 | 4 | 5 | 4 | 3 | 3 | 2 | 2 | - | - | 3 | 5 | 11 | 10 | 8 | 5 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| 2.x | - | - | - | - | - | - | - | - | - | 2 | 2 | 3 | 5 | 4 | 5 | 7 | 5 | 4 | 3 | 2 | 2 | 3 | 5 | 5 | 8 | 13 | 11 | 9 | 8 | 5 | 4 | 3 | 3 | 3 | 2 | 2 | - | | |
| 3.7 | - | - | - | - | - | - | - | - | - | 2 | 3 | 4 | 4 | 5 | 5 | 4 | 3 | 2 | 2 | 2 | 3 | 5 | 8 | 18 | 23 | 28 | 23 | 16 | 11 | 10 | 11 | 8 | 7 | 5 | 4 | 3 | - | | |
| 4.7 | - | - | - | - | - | - | - | - | - | 2 | 3 | 4 | 4 | 5 | 5 | 4 | 3 | 2 | 2 | 2 | 3 | 5 | 8 | 18 | 23 | 28 | 23 | 16 | 11 | 10 | 11 | 8 | 7 | 5 | 4 | 3 | - | | |
| 5.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8.7 | - | - | - | - | - | - | - | - | - | 2 | 3 | 5 | 16 | 22 | 15 | 10 | 4 | 2 | - | - | 2 | 3 | 5 | 7 | 8 | 10 | 9 | 7 | 5 | 8 | 9 | 8 | 7 | 6 | 3 | 2 | - | | |
| 9.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.7a | - | - | - | - | - | - | - | - | 3 | 4 | 4 | 4 | 5 | 8 | 7 | 3 | 4 | 3 | - | - | - | - | - | - | 3 | 3 | 5 | 6 | 11 | 8 | 5 | 5 | 4 | - | - | - | - | | |
| 11.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.9 | - | - | - | - | - | - | - | - | 2 | 2 | 3 | 5 | 6 | 6 | 4 | 3 | 3 | 2 | - | - | - | - | 2 | 3 | 4 | 5 | 11 | 10 | 8 | 7 | 6 | 5 | 3 | 2 | 2 | 2 | - | | |
| 13.6 | - | - | - | - | - | - | - | - | 2 | 5 | 5 | 4 | 4 | 3 | 2 | - | - | - | - | - | - | - | 2 | 3 | 4 | 12 | 14 | 7 | 6 | 7 | 6 | 5 | 4 | 3 | 2 | 2 | - | | |
| 14.6 | - | - | - | - | - | - | - | - | 2 | 3 | 6 | 5 | 4 | 4 | 3 | 2 | - | - | - | - | - | - | 2 | 3 | 4 | 6 | 8 | 5 | 4 | 5 | 6 | 7 | 6 | 5 | 3 | 2 | - | | |
| 15.7a | - | - | - | - | - | - | - | - | 2 | 3 | 2 | 3 | 3 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 2 | 3 | 4 | 4 | 3 | 2 | - | - | | | |
| 16.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22.7 | - | - | - | - | - | - | - | 3 | 4 | 5 | 3 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | 2 | 3 | 4 | 5 | 11 | 12 | 8 | 6 | 5 | 3 | 2 | - | | | |
| 23.7 | - | - | - | - | - | - | - | 3 | 4 | 3 | 4 | 5 | 4 | 3 | 2 | - | - | - | - | - | - | - | - | 2 | 2 | 3 | 6 | 14 | 20 | 15 | 11 | 8 | 5 | 3 | - | - | | | |
| 24.7 | - | - | - | - | - | - | - | 2 | 3 | 3 | 4 | 2 | - | - | - | - | - | - | - | - | - | - | - | 2 | 3 | 4 | 8 | 11 | 14 | 13 | 10 | 7 | 5 | 3 | 2 | - | | | |
| 25.7 | - | - | - | - | - | - | - | 2 | 3 | 3 | 4 | 3 | 2 | 2 | - | - | - | - | - | - | - | - | 2 | 3 | 3 | 4 | 6 | 16 | 18 | 14 | 10 | 7 | 5 | 3 | 2 | - | | | |
| 26.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28.x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29.7 | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | - | 2 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 2 | - | - | - | | | |
| 30.7 | - | - | - | - | - | - | - | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | 2 | 3 | 3 | 4 | 5 | 7 | 4 | 3 | 3 | 4 | 3 | 3 | 2 | - | | | |
| 31.7a | - | - | - | - | - | - | - | - | - | - | - | 2 | 3 | 3 | 3 | 2 | - | - | - | - | - | 4 | 4 | 4 | 5 | 5 | 5 | 4 | - | - | - | - | - | - | - | - | | | |

[illegible]

Table 99a

[illegible]

Table 100Zürich Provisional Relative Sunspot NumbersMarch 1955

| Date | R _Z * | Date | R _Z * |
|------|------------------|-------|------------------|
| 1 | 23 | 17 | 0 |
| 2 | 20 | 18 | 0 |
| 3 | 16 | 19 | 0 |
| 4 | 15 | 20 | 0 |
| 5 | 8 | 21 | 0 |
| 6 | 8 | 22 | 0 |
| 7 | 8 | 23 | 0 |
| 8 | 8 | 24 | 0 |
| 9 | 7 | 25 | 0 |
| 10 | 0 | 26 | 0 |
| 11 | 0 | 27 | 7 |
| 12 | 0 | 28 | 0 |
| 13 | 0 | 29 | 0 |
| 14 | 0 | 30 | 17 |
| 15 | 0 | 31 | 10 |
| 16 | 0 | Mean: | 4.7 |

* Dependent on observations at Zürich Observatory and its stations at Locarno and Arosa.

Table 101American Relative Sunspot NumbersFebruary 1955

| Date | R _A ' | Date | R _A ' |
|------|------------------|------------|------------------|
| 1 | 25 | 16 | 11 |
| 2 | 33 | 17 | 1 |
| 3 | 40 | 18 | 0 |
| 4 | 35 | 19 | 0 |
| 5 | 28 | 20 | 0 |
| 6 | 31 | 21 | 12 |
| 7 | 36 | 22 | 19 |
| 8 | 27 | 23 | 27 |
| 9 | 26 | 24 | 27 |
| 10 | 30 | 25 | 29 |
| 11 | 29 | 26 | 31 |
| 12 | 28 | 27 | 33 |
| 13 | 15 | 28 | 36 |
| 14 | 13 | Mean: 22.6 | |
| 15 | 11 | | |

Table 102Solar Flares, March 1955

No solar flares were reported for the month of March.

Table 103

Indices of Geomagnetic Activity for February 1955

Preliminary values of international character-figures, C;

Geomagnetic planetary three-hour-range indices, Kp;

Daily "equivalent amplitude", Ap;

Magnetically selected quiet and disturbed days

| Feb. 1955 | C * | Values Kp | | | | | | | | Sum | A _p | Final * Selected Days |
|--------------|-----|-------------------------|----|----|----|----|----|----|----|----------|----------------|-----------------------------|
| | | Three-hour Gr. interval | | | | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | |
| 1 | | 0o | 0o | 0+ | 1- | 1+ | 1o | 1o | 1+ | 6- | 3 | |
| 2 | | 1o | 0+ | 1+ | 1o | 1+ | 2- | 2- | 2- | 10o | 5 | |
| 3 | | 4- | 3+ | 2+ | 1+ | 1o | 2- | 1o | 2+ | 17- | 10 | |
| 4 | | 1o | 2+ | 3- | 5- | 3o | 3o | 4o | 4o | 25- | 18 | |
| 5 | | 4- | 2+ | 3- | 3- | 3o | 2+ | 3+ | 4o | 24o | 16 | |
| 6 | | 2- | 3+ | 3- | 2+ | 3o | 3+ | 3- | 4- | 23- | 14 | |
| 7 | | 4- | 4o | 3- | 2o | 4o | 3o | 2o | 1o | 22+ | 15 | |
| 8 | | 2o | 2- | 2- | 2o | 2- | 4- | 4- | 4- | 20o | 12 | |
| 9 | | 2+ | 3- | 4- | 3+ | 2o | 2+ | 3- | 1o | 20o | 12 | |
| 10 | | 1+ | 1+ | 3- | 2- | 1+ | 1o | 2- | 2- | 13- | 6 | |
| 11 | | 1- | 1o | 1o | 1+ | 2o | 4- | 5- | 5- | 19o | 15 | |
| 12 | | 3+ | 3+ | 2+ | 2o | 2+ | 2o | 3- | 4- | 22- | 13 | |
| 13 | | 4o | 3o | 2- | 3+ | 2- | 3o | 2+ | 0o | 19o | 12 | |
| 14 | | 1+ | 3- | 3- | 2o | 2+ | 3o | 2+ | 4- | 20o | 11 | |
| 15 | | 3+ | 3o | 3+ | 2o | 1- | 0o | 0o | 0o | 12+ | 8 | |
| 16 | | 0o | 0+ | 1o | 2+ | 3- | 2- | 2+ | 2o | 12+ | 6 | |
| 17 | | 3o | 2o | 1o | 2o | 2o | 0+ | 0+ | 2- | 12+ | 6 | |
| 18 | | 1+ | 3+ | 2o | 1+ | 0+ | 0o | 3- | 3+ | 14+ | 8 | |
| 19 | | 2o | 2+ | 2+ | 1- | 2- | 1o | 1o | 1+ | 12+ | 6 | |
| 20 | | 1o | 3- | 2o | 2o | 3- | 2o | 3- | 1o | 16o | 8 | |
| 21 | | 3o | 5- | 3o | 2o | 3- | 2+ | 2o | 2- | 21+ | 14 | |
| 22 | | 3o | 4+ | 3- | 4- | 3o | 2o | 3- | 3- | 24o | 16 | |
| 23 | | 3+ | 3o | 3o | 4+ | 4+ | 4o | 4o | 2+ | 28+ | 22 | |
| 24 | | 3- | 3o | 3- | 2o | 3+ | 1+ | 3- | 2- | 19+ | 11 | |
| 25 | | 4- | 4- | 2- | 3+ | 2+ | 3- | 1+ | 3- | 21+ | 13 | |
| 26 | | 3+ | 4o | 1+ | 2o | 1+ | 1- | 2- | 1o | 15+ | 9 | |
| 27 | | 0o | 0+ | 2- | 1o | 1+ | 1+ | 2o | 2+ | 10o | 5 | |
| 28 | | 5+ | 6o | 4o | 4- | 5o | 3+ | 1- | 2- | 30- | 32 | |
| | | | | | | | | | | Mean: 12 | | |

*Not received; data will appear next month.

GRAPHS OF IONOSPHERIC DATA

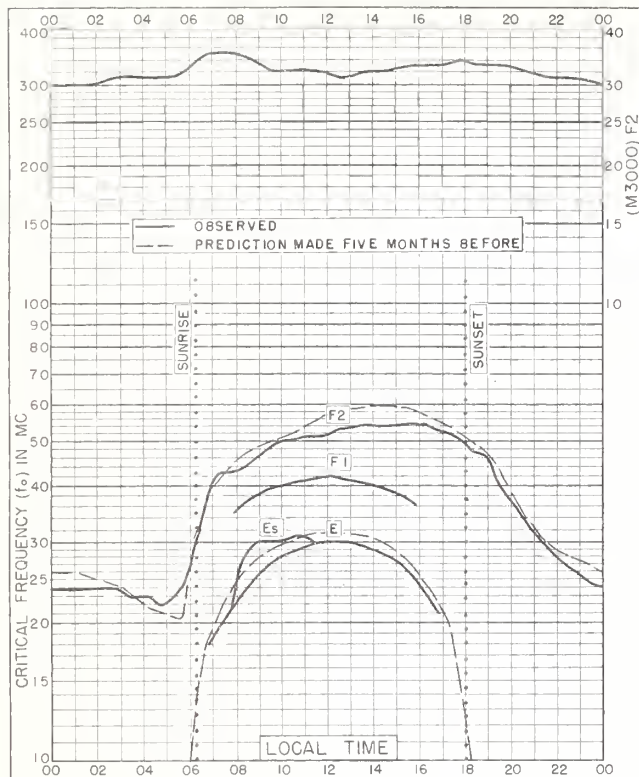


Fig. 1. WASHINGTON, D. C.
38.7°N, 77.1°W

MARCH 1955

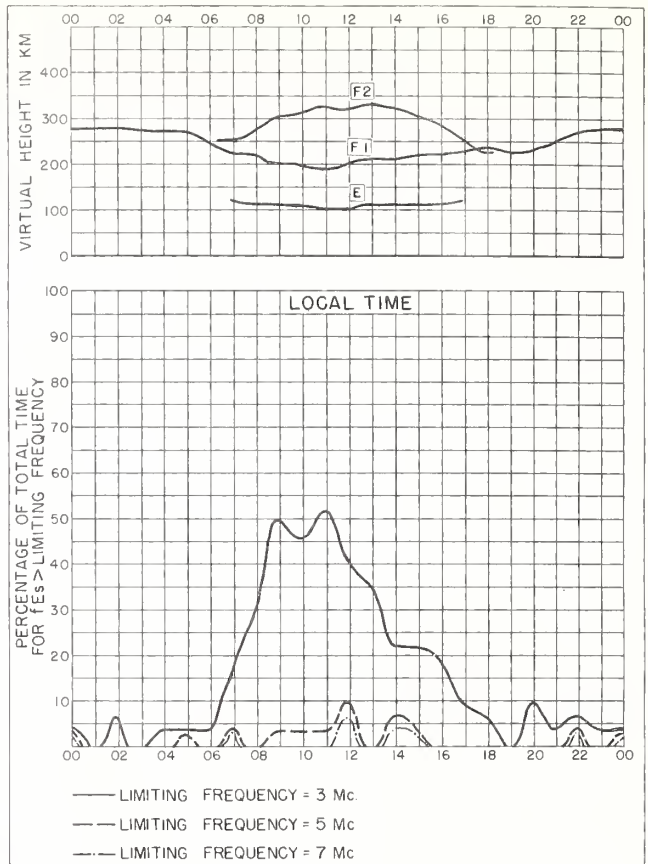


Fig. 2. WASHINGTON, D. C.

MARCH 1955

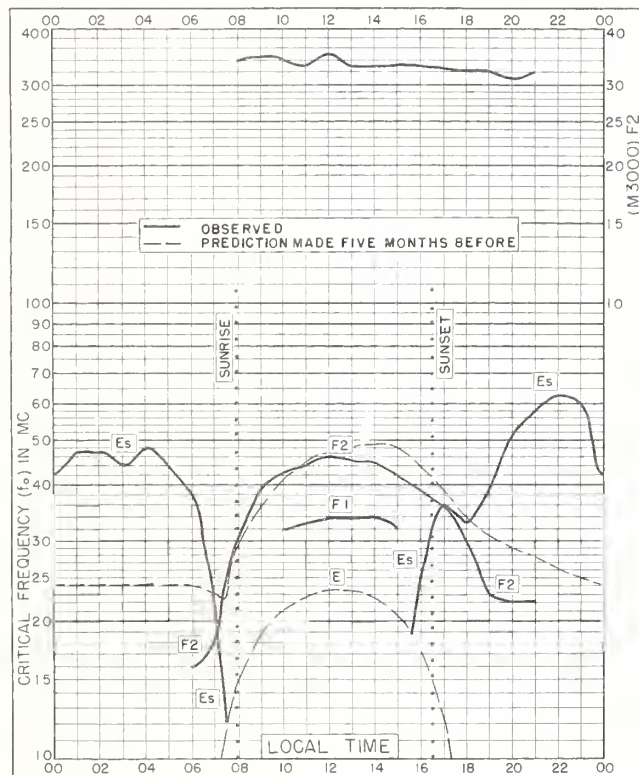


Fig. 3. NARSARSSUAK, GREENLAND
61.2°N, 45.4°W

FEBRUARY 1955

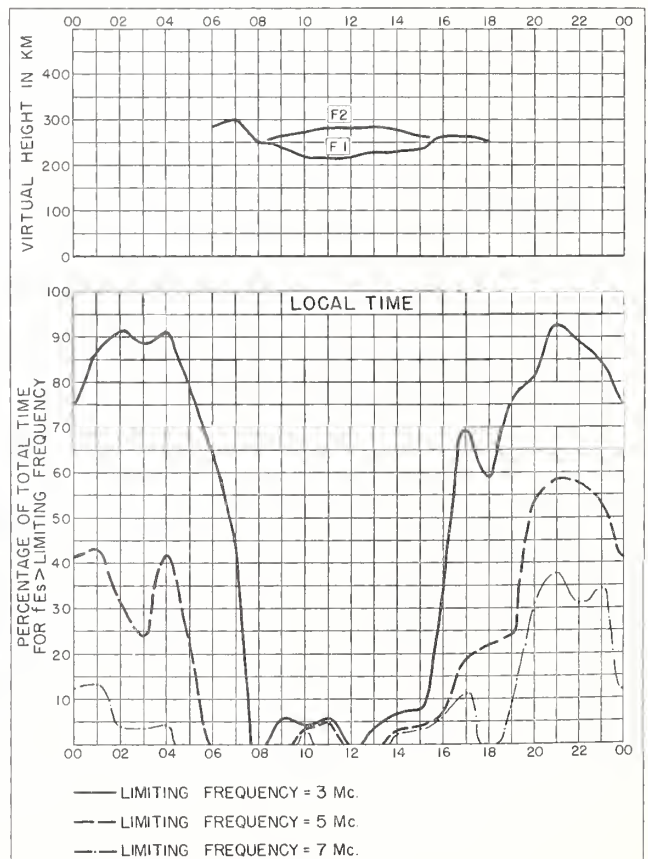


Fig. 4. NARSARSSUAK, GREENLAND FEBRUARY 1955

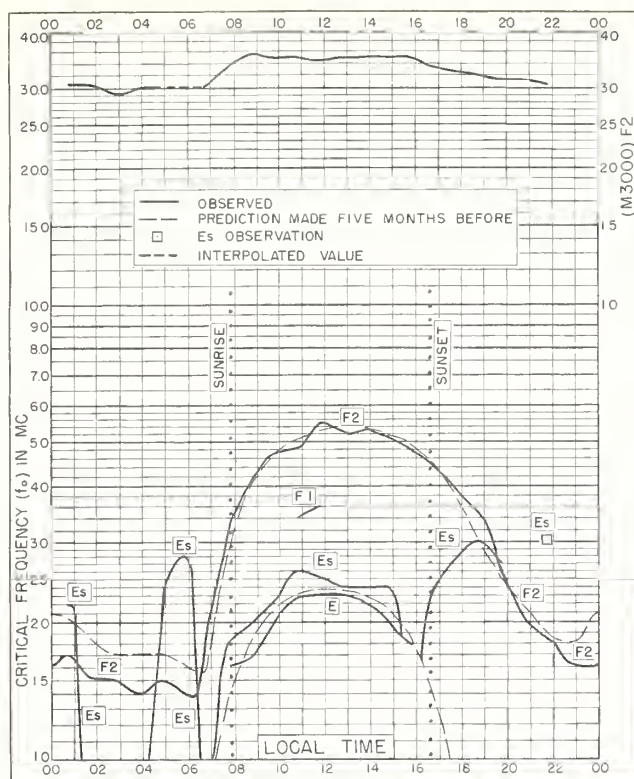


Fig. 5. OSLO, NORWAY

60.0°N, 11.1°E

FEBRUARY 1955

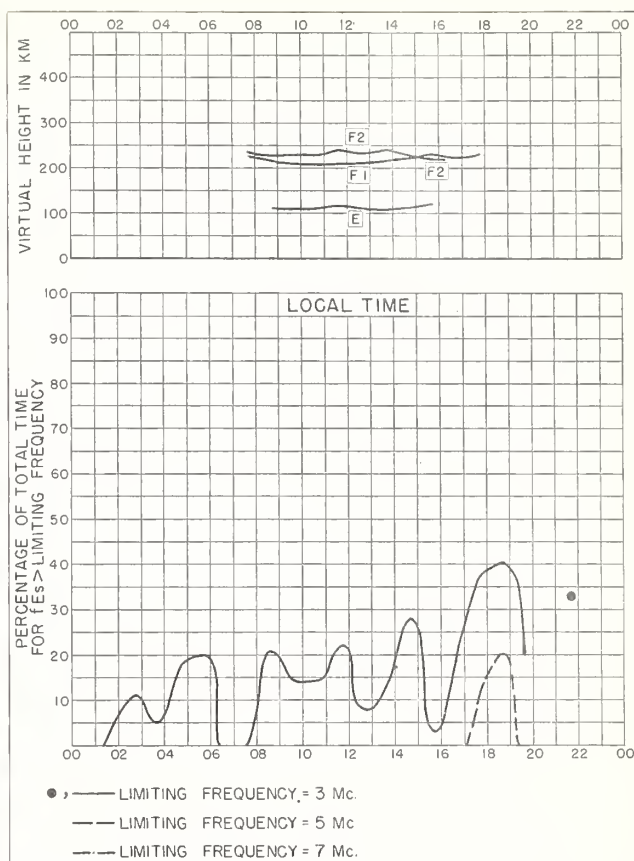


Fig. 6. OSLO, NORWAY

FEBRUARY 1955

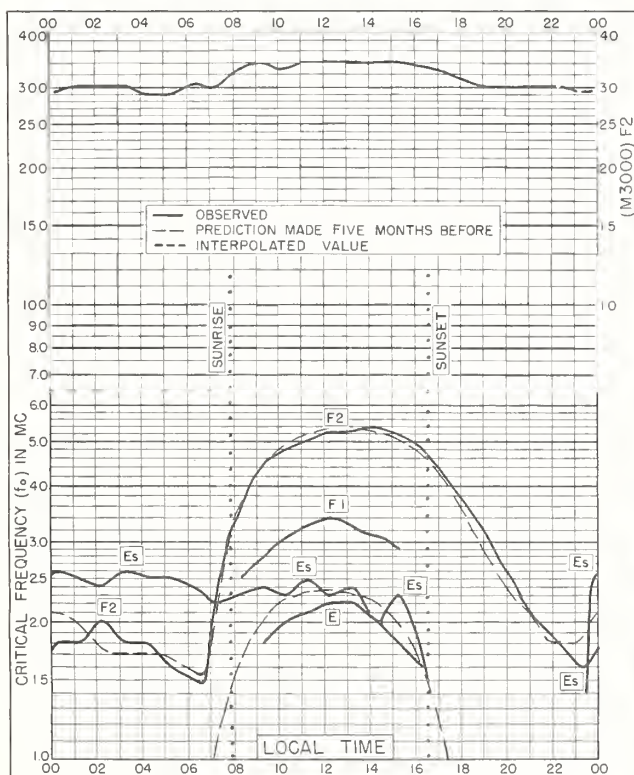


Fig. 7. UPSALA, SWEDEN

59.8°N, 17.6°E

FEBRUARY 1955

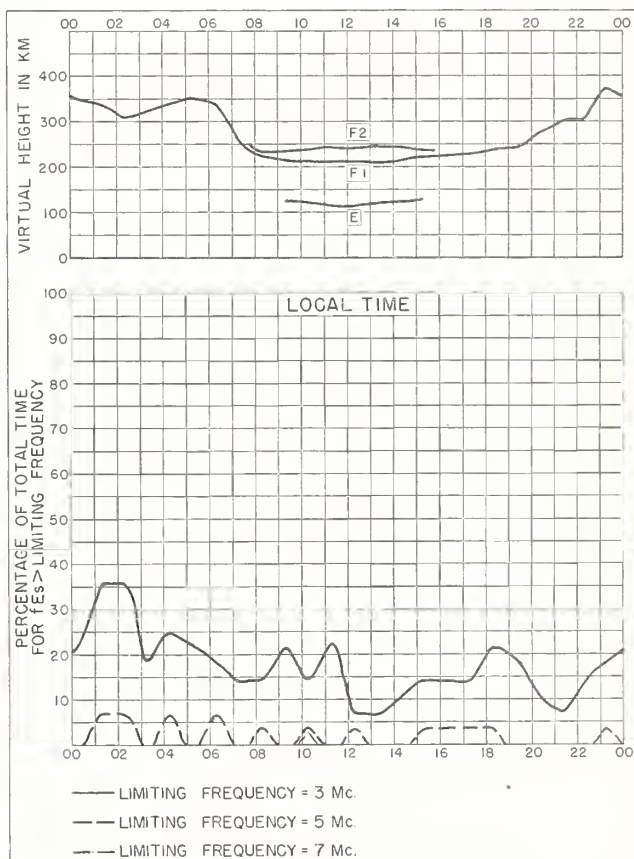


Fig. 8. UPSALA, SWEDEN

FEBRUARY 1955

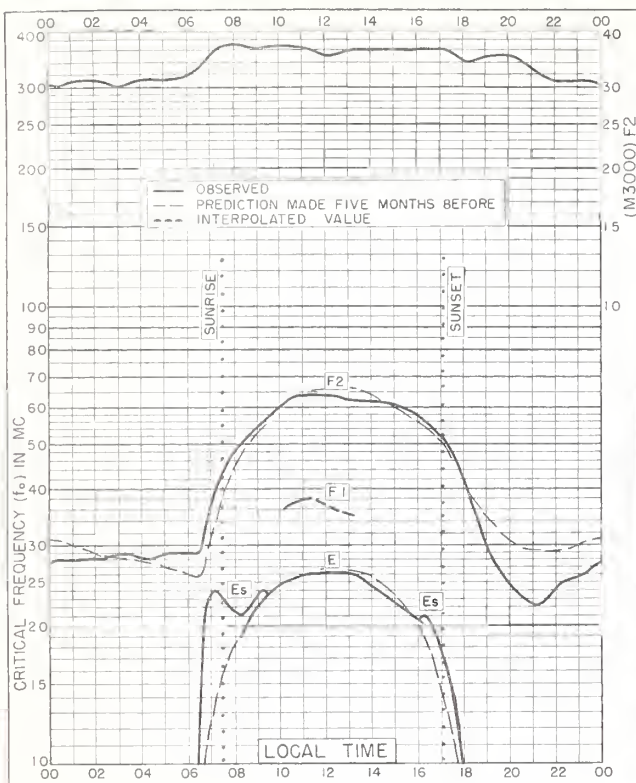


Fig. 9. ADAK, ALASKA
51.9°N, 176.6°W

FEBRUARY 1955

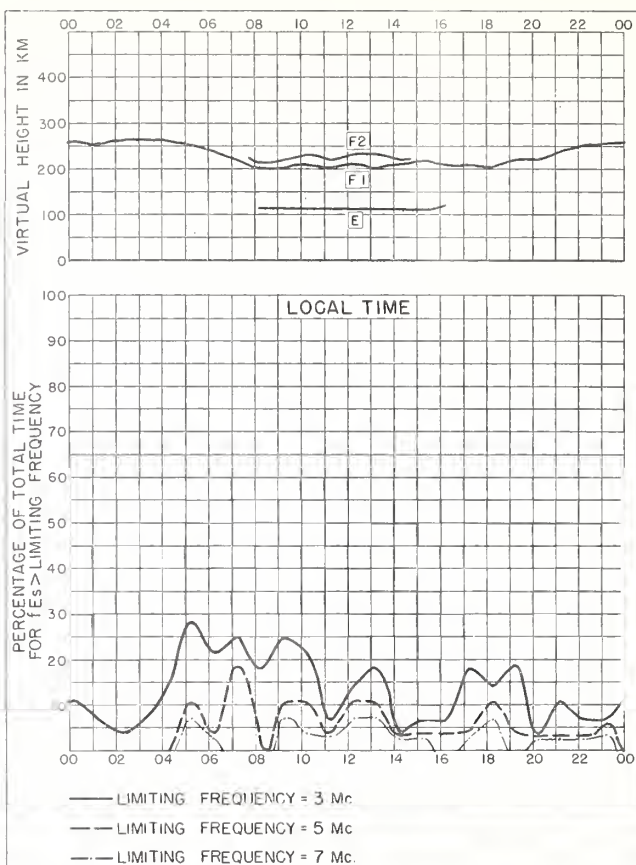


Fig. 10. ADAK, ALASKA

FEBRUARY 1955

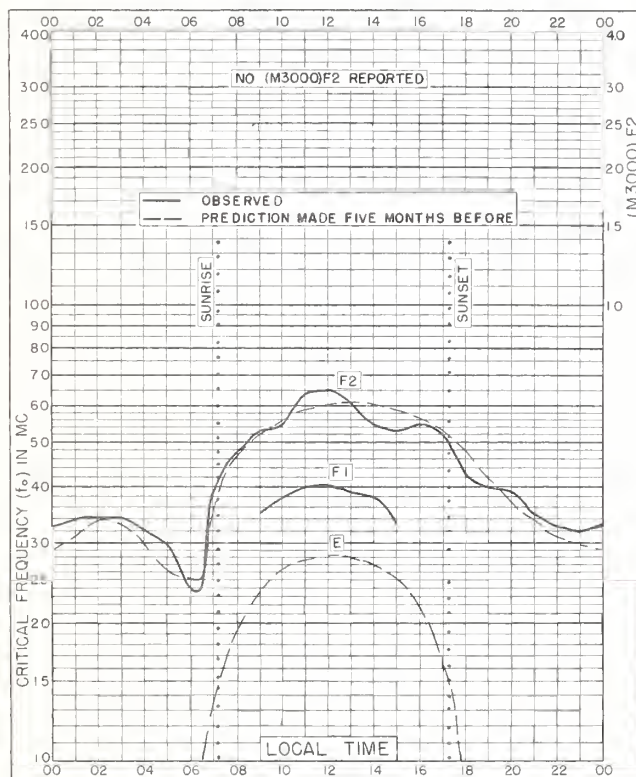


Fig. 11. GRAZ, AUSTRIA
47.1°N, 15.5°E

FEBRUARY 1955

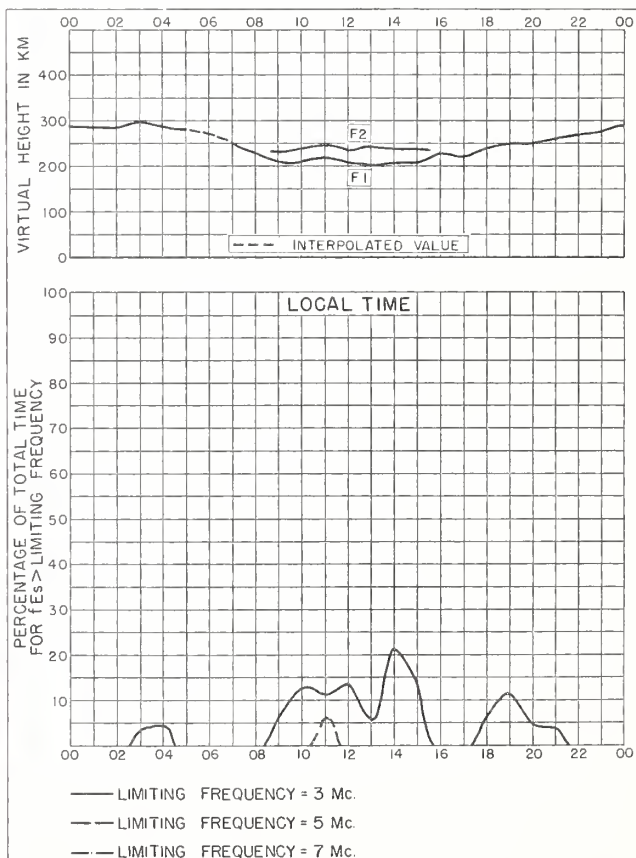


Fig. 12. GRAZ, AUSTRIA

FEBRUARY 1955

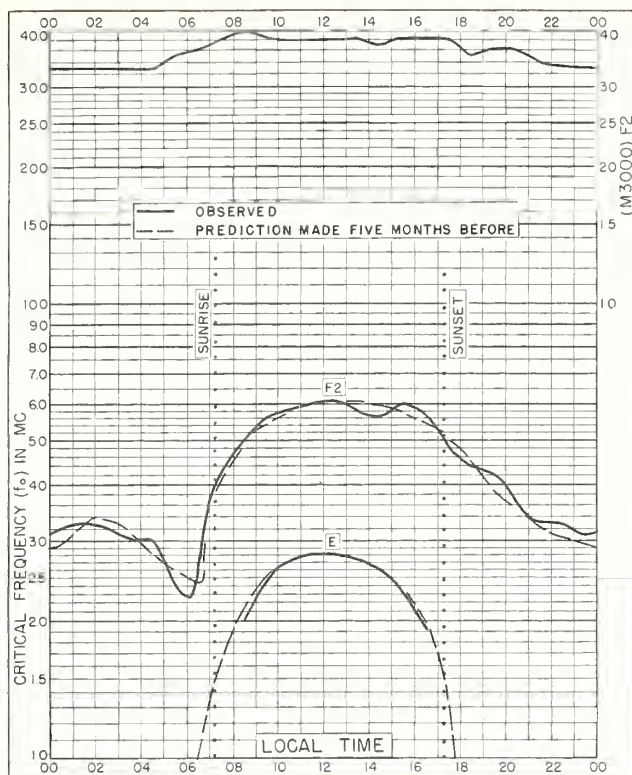


Fig. 13. SCHWARZENBURG, SWITZERLAND
46.8°N, 7.3°E FEBRUARY 1955

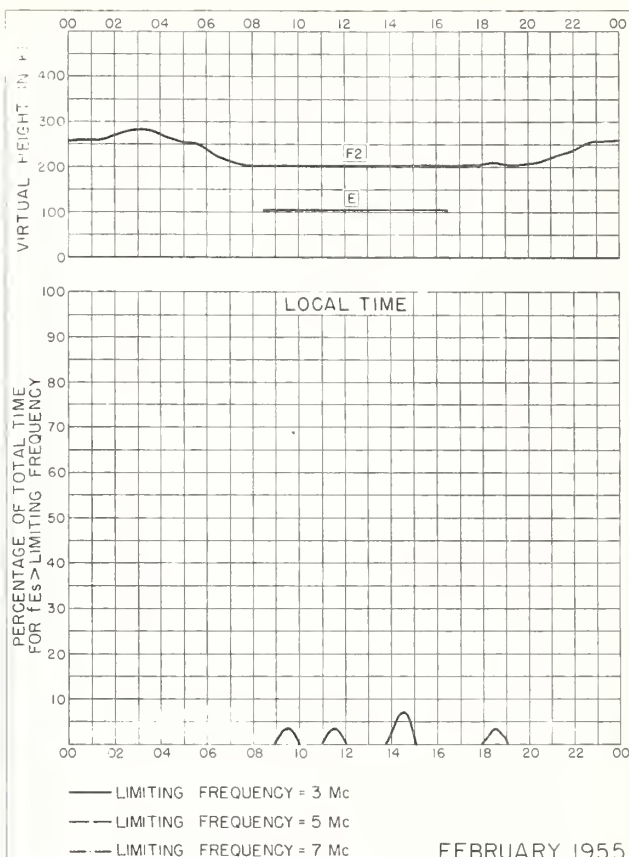


Fig. 14. SCHWARZENBURG, SWITZERLAND

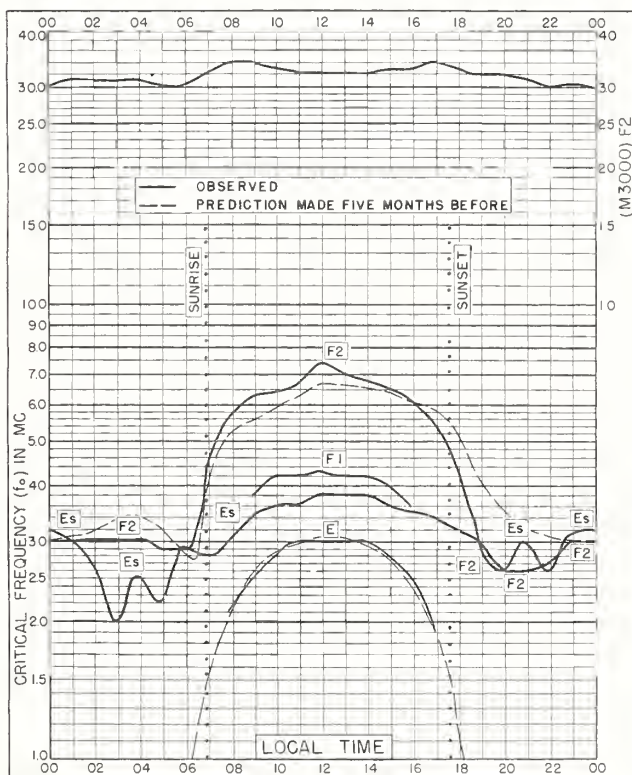


Fig. 15. SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W FEBRUARY 1955

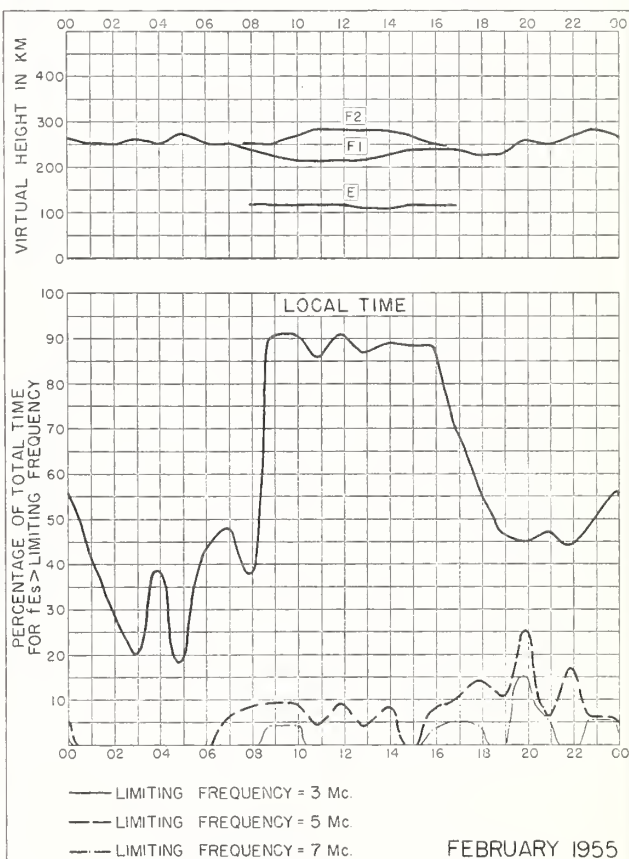


Fig. 16. SAN FRANCISCO, CALIFORNIA

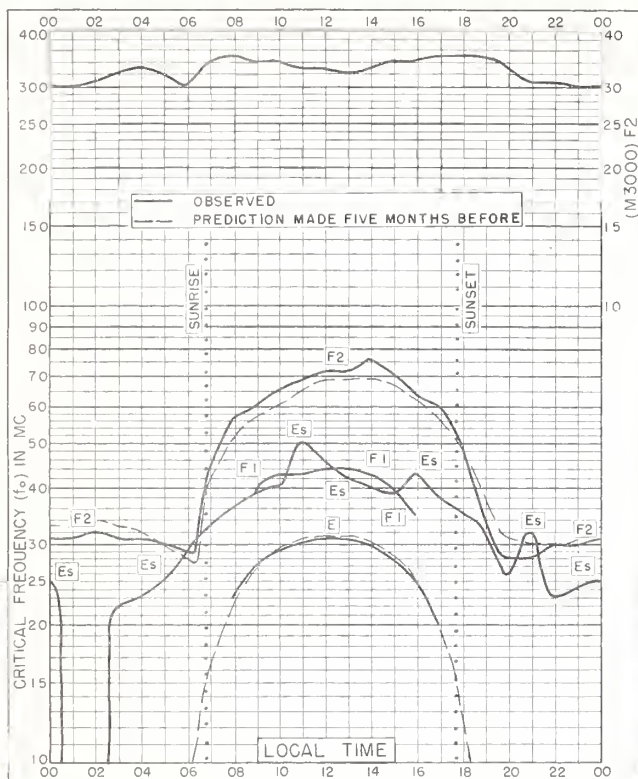


Fig. 17. WHITE SANDS, NEW MEXICO
32.3°N, 106.5°W FEBRUARY 1955

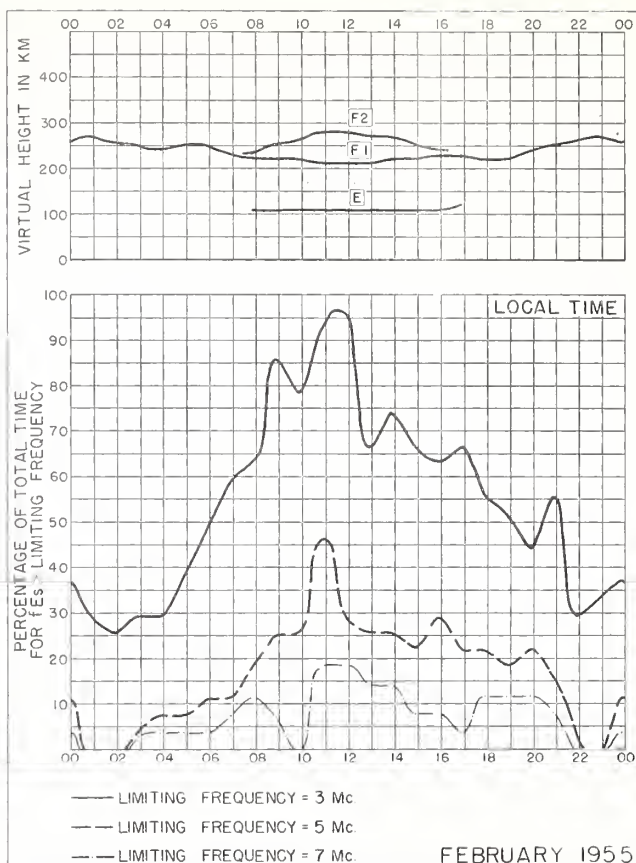


Fig. 18. WHITE SANDS, NEW MEXICO

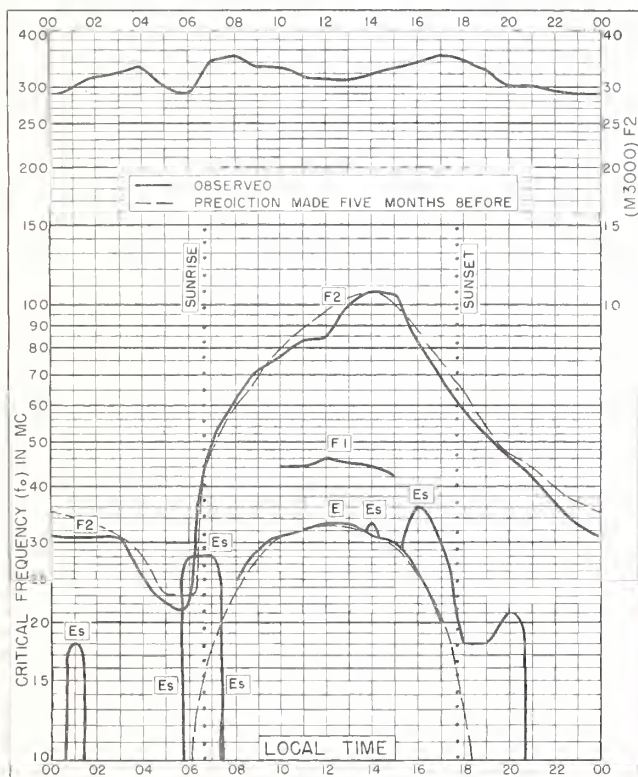


Fig. 19. OKINAWA I.
26.3°N, 127.8°E FEBRUARY 1955

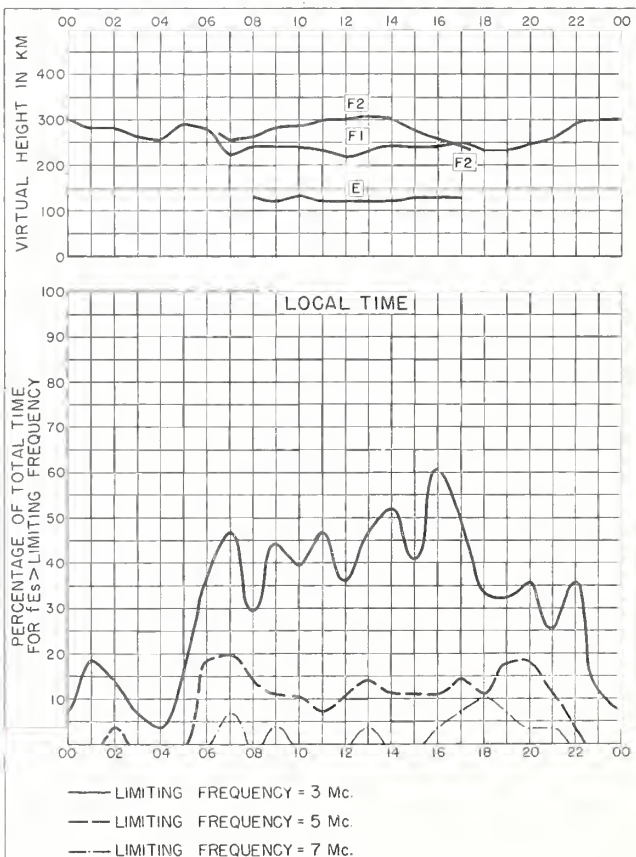


Fig. 20. OKINAWA I. FEBRUARY 1955

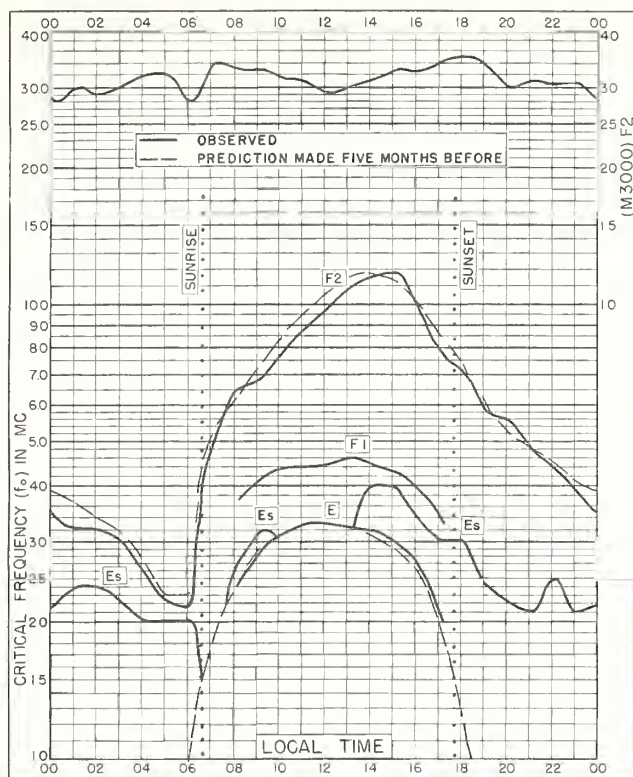


Fig. 21. FORMOSA, CHINA
25.0°N, 121.5°E
FEBRUARY 1955

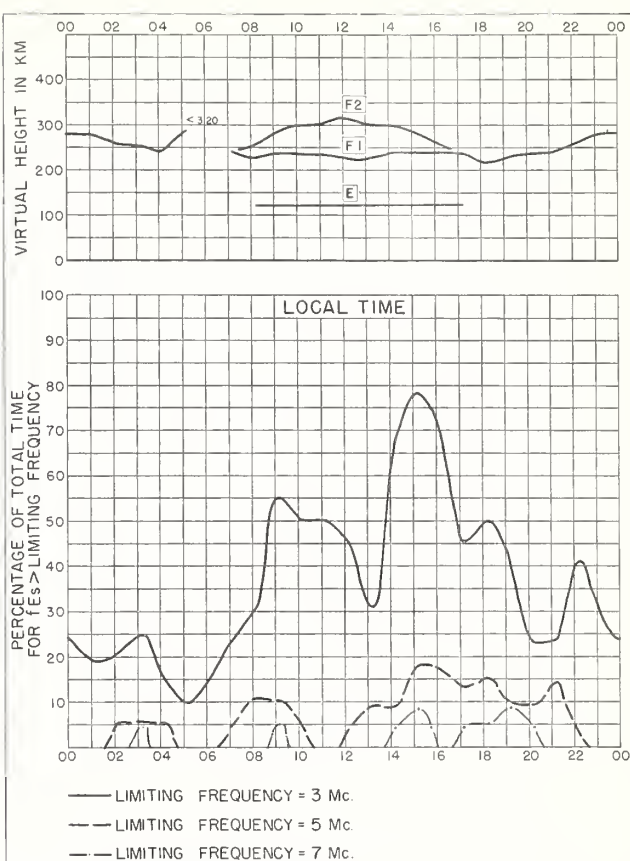


Fig. 22. FORMOSA, CHINA
FEBRUARY 1955

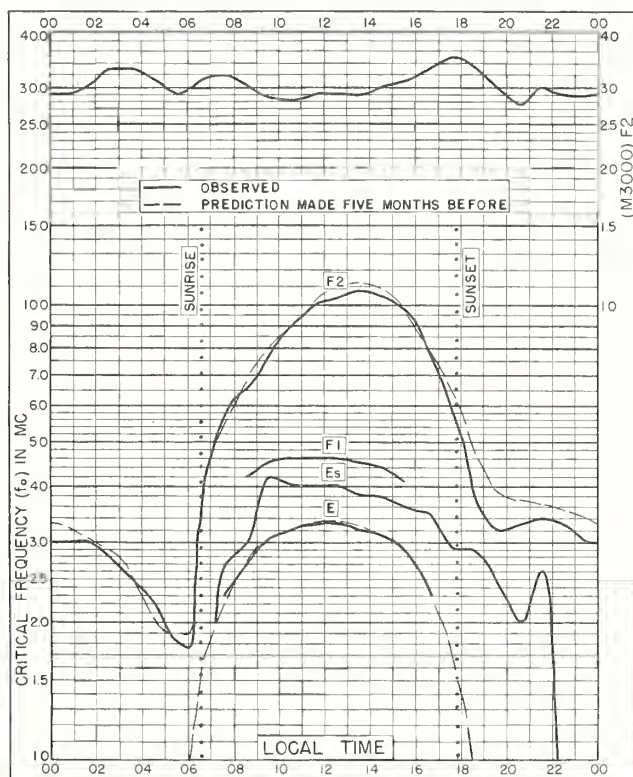


Fig. 23. MAUI, HAWAII
208°N, 156.5°W.
FEBRUARY 1955

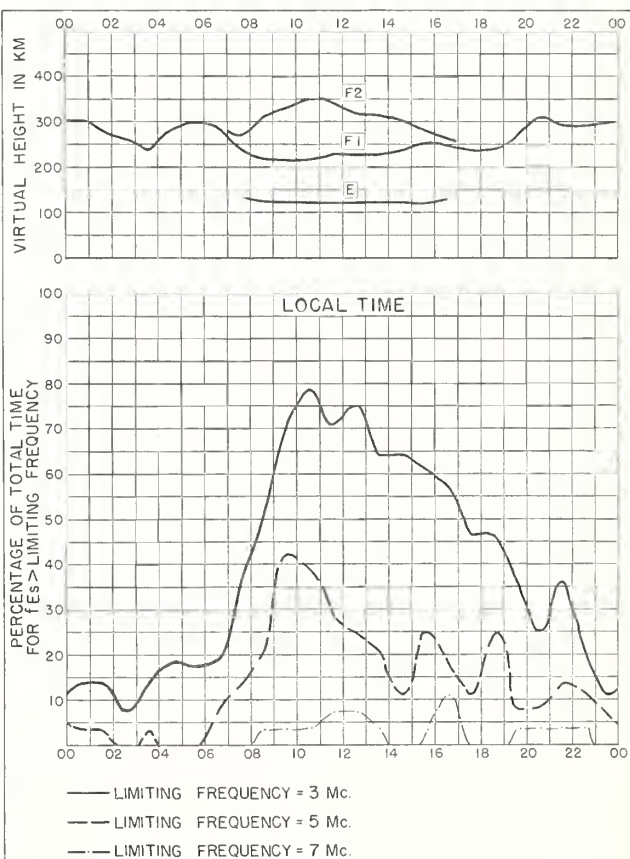


Fig. 24. MAUI, HAWAII
FEBRUARY 1955

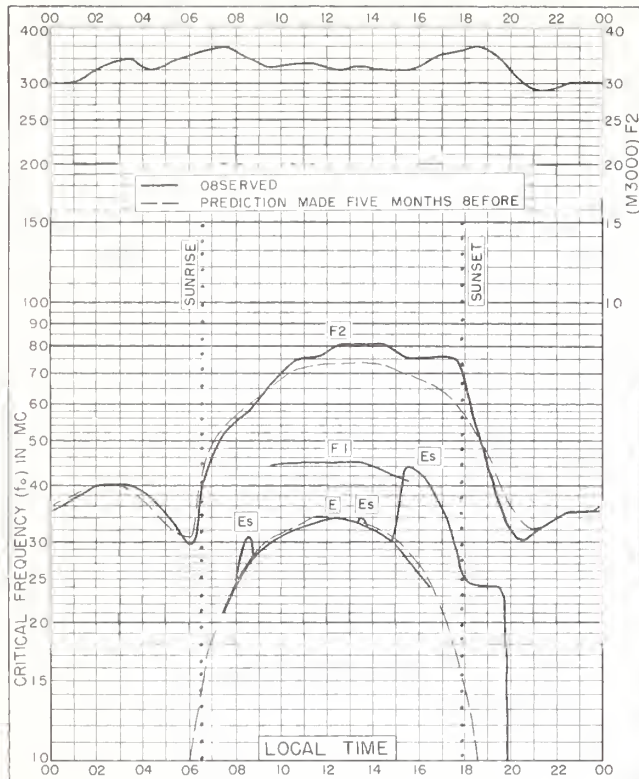


Fig 25. PUERTO RICO, W. I.
18.5°N, 67.2°W.

FEBRUARY 1955

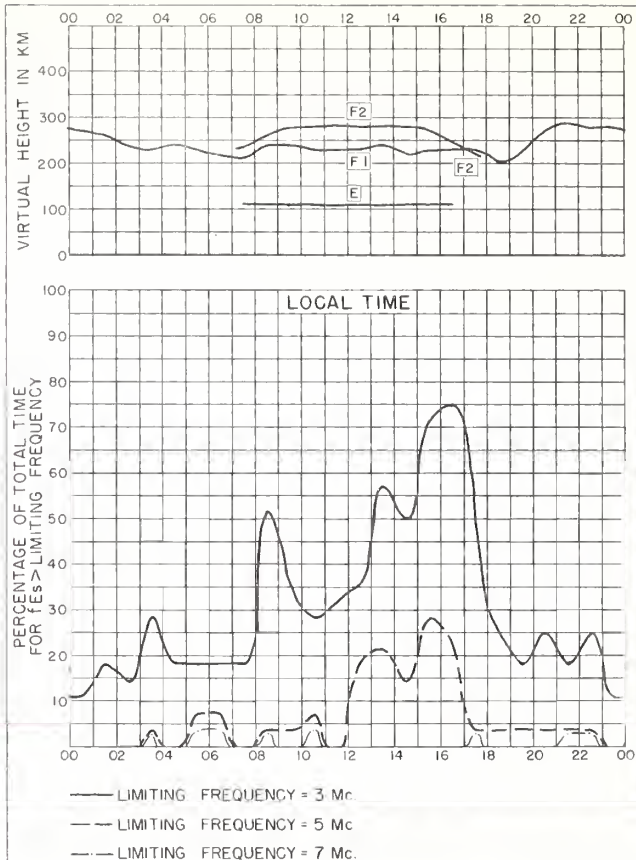


Fig 26. PUERTO RICO, W. I.

FEBRUARY 1955

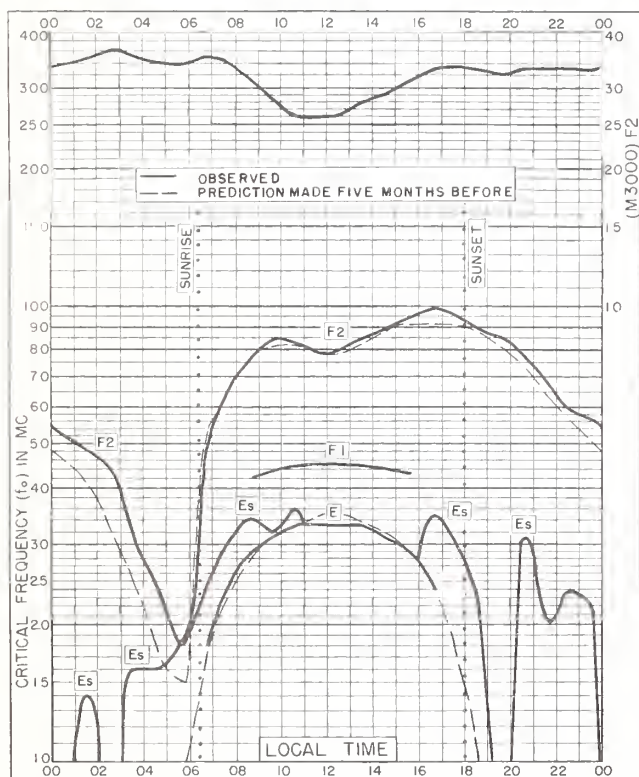


Fig. 27. GUAM I.
13.6°N, 144.9°E

FEBRUARY 1955

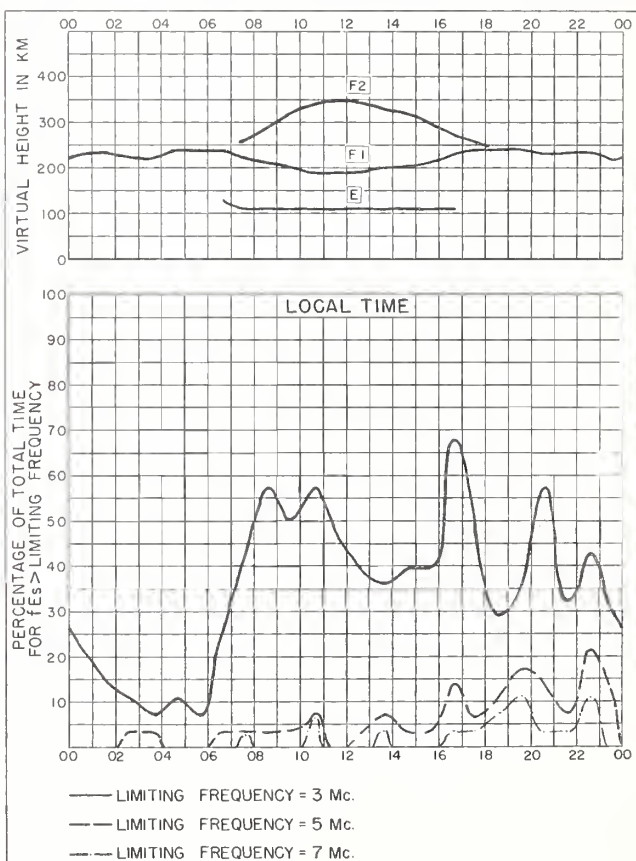


Fig. 28. GUAM I.

FEBRUARY 1955

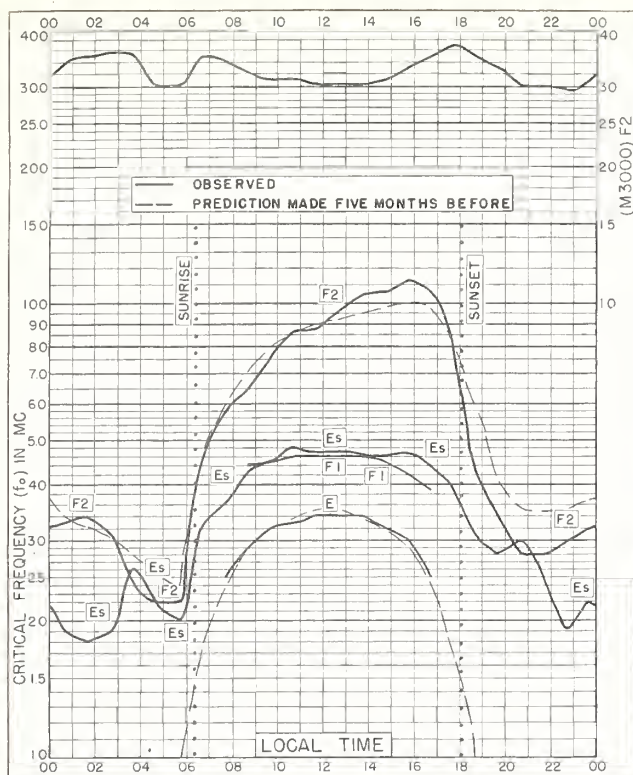


Fig. 29. PANAMA CANAL ZONE
9.4°N, 79.9°W
FEBRUARY 1955

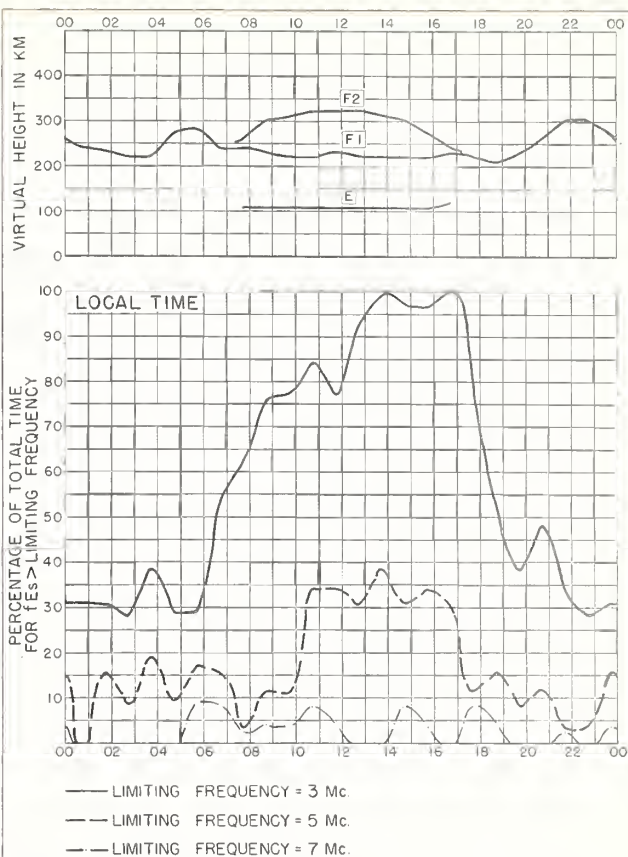


Fig. 30. PANAMA CANAL ZONE
FEBRUARY 1955

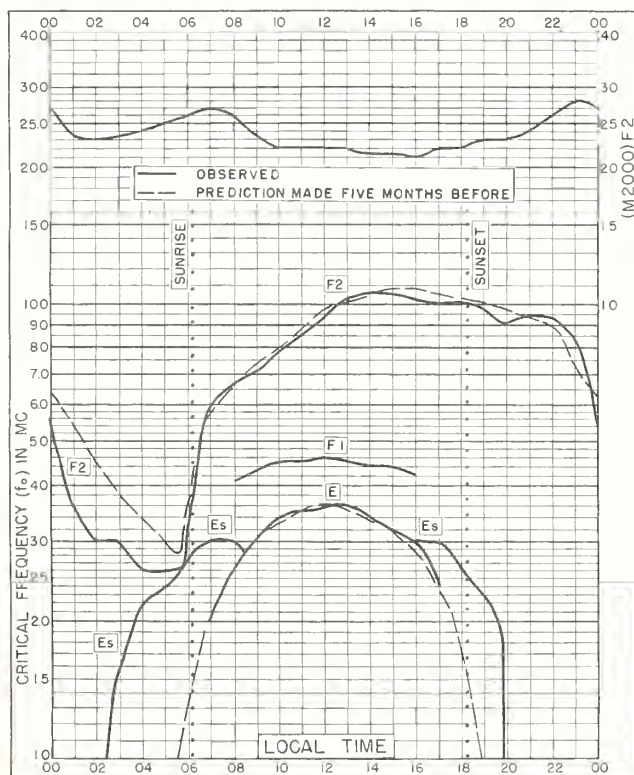


Fig. 31. LEOPOLDVILLE, BELGIAN CONGO
4.3°S, 15.3°E
FEBRUARY 1955

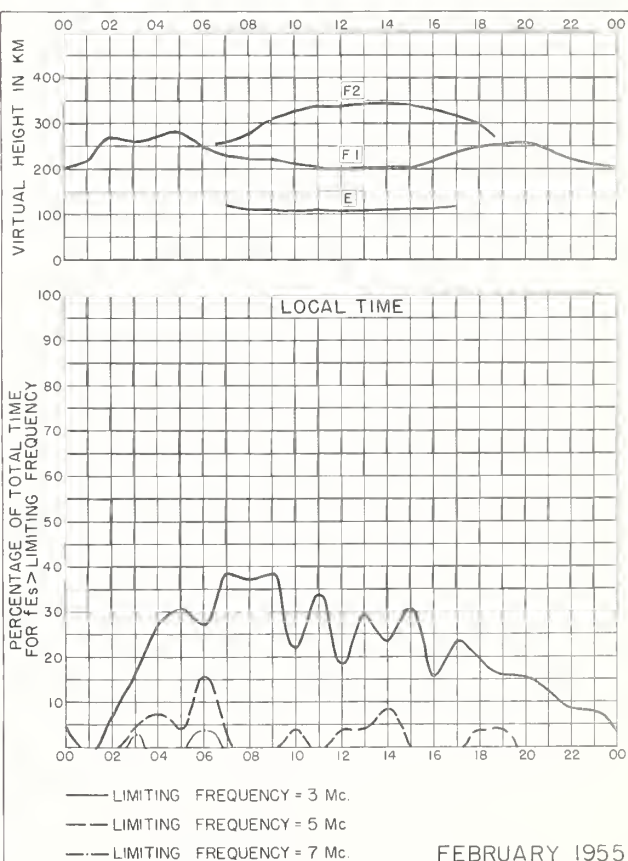


Fig. 32. LEOPOLDVILLE, BELGIAN CONGO
FEBRUARY 1955

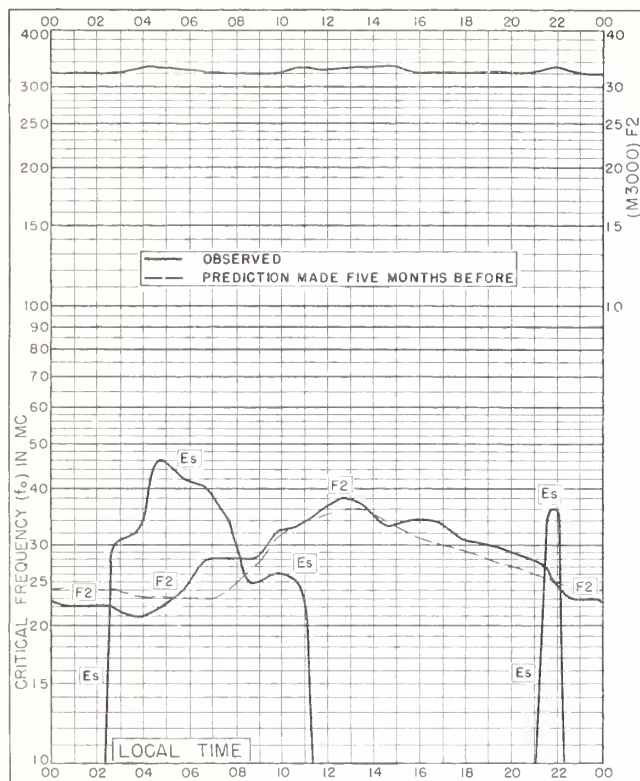


Fig. 33. RESOLUTE BAY, CANADA
74.7°N, 94.9°W.

JANUARY 1955

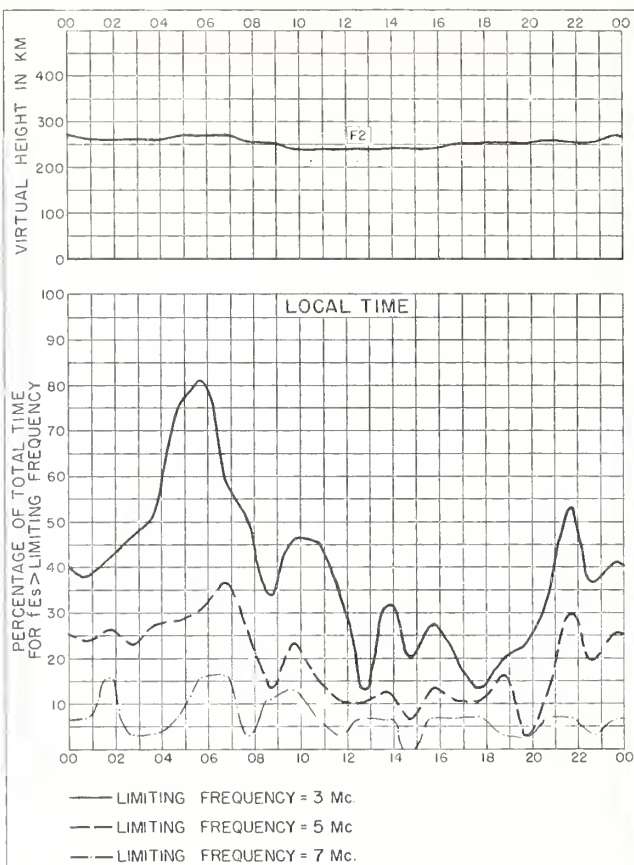


Fig. 34. RESOLUTE BAY, CANADA

JANUARY 1955

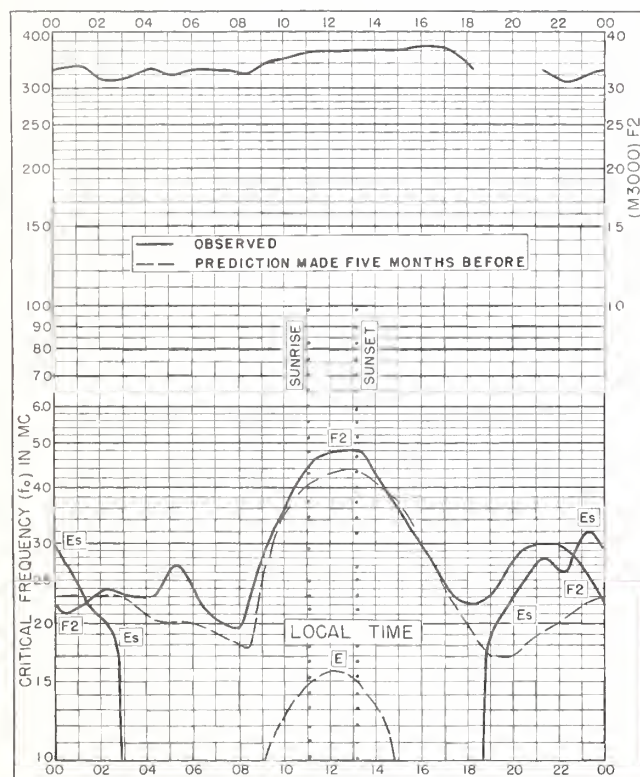


Fig. 35. KIRUNA, SWEDEN
67.8°N, 20.3°E

JANUARY 1955

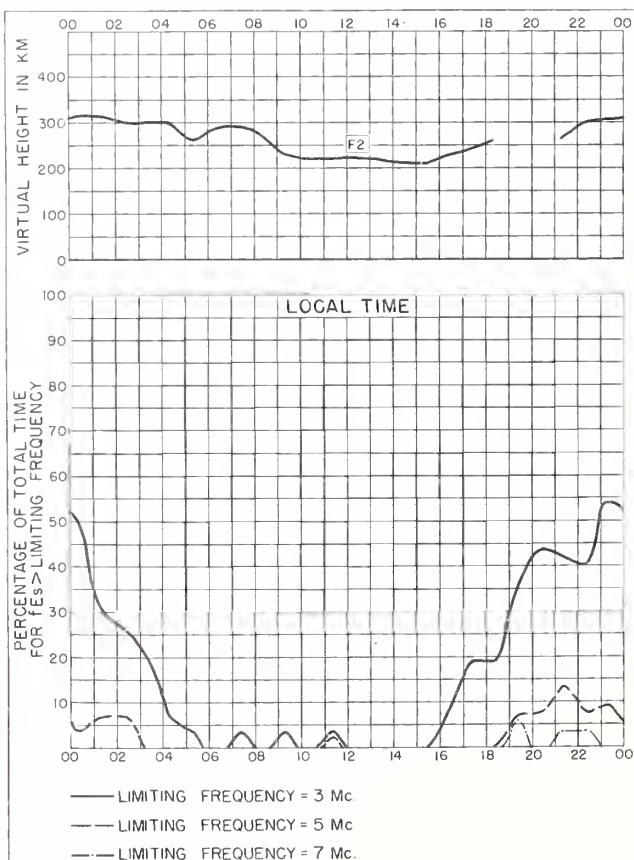


Fig. 36. KIRUNA, SWEDEN

JANUARY 1955

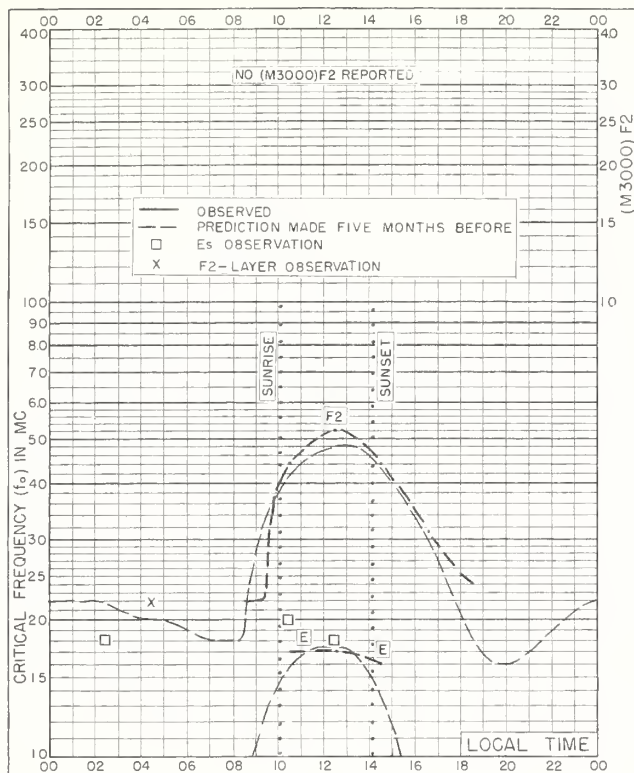


Fig. 37. LULEA, SWEDEN
65.6°N, 22.1°E

JANUARY 1955

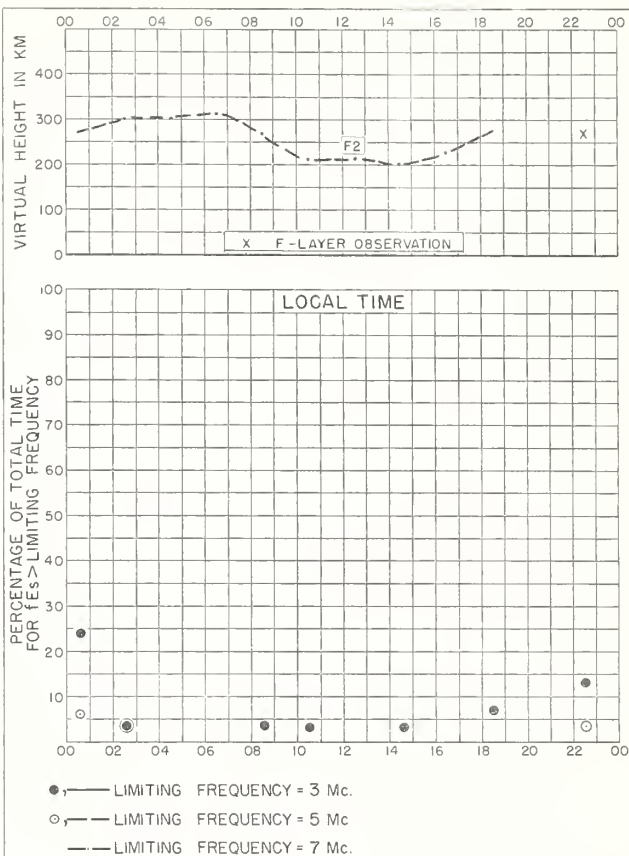


Fig. 38. LULEA, SWEDEN

JANUARY 1955

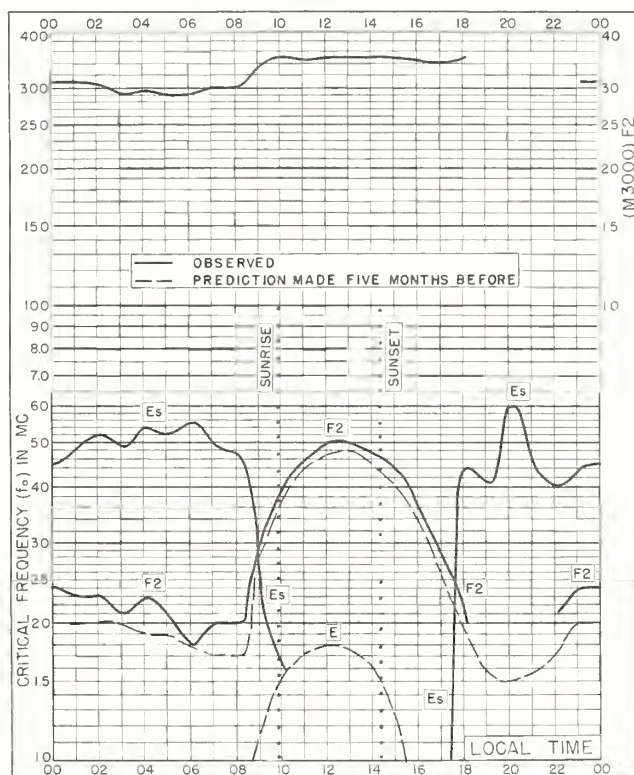


Fig. 39. FAIRBANKS, ALASKA
64.9°N, 147.8°W

JANUARY 1955

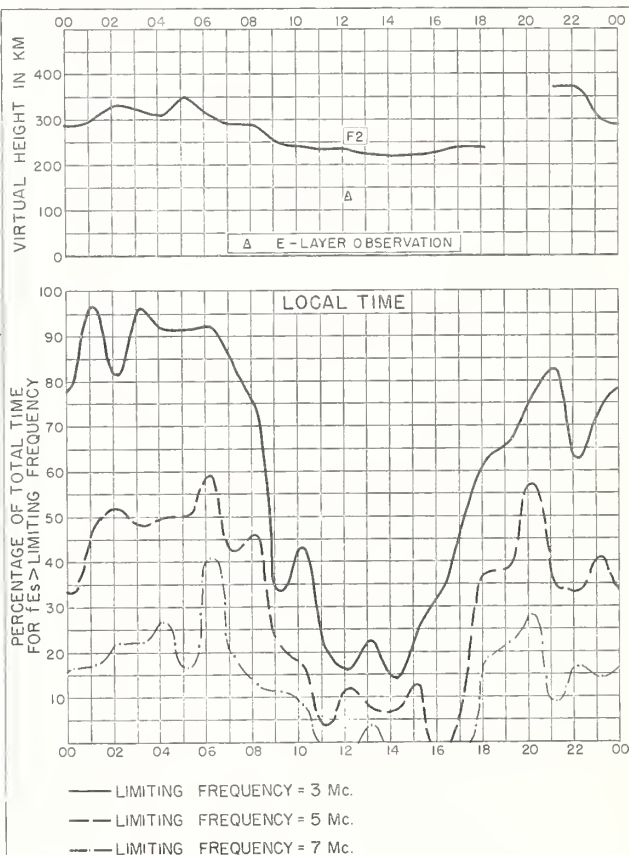
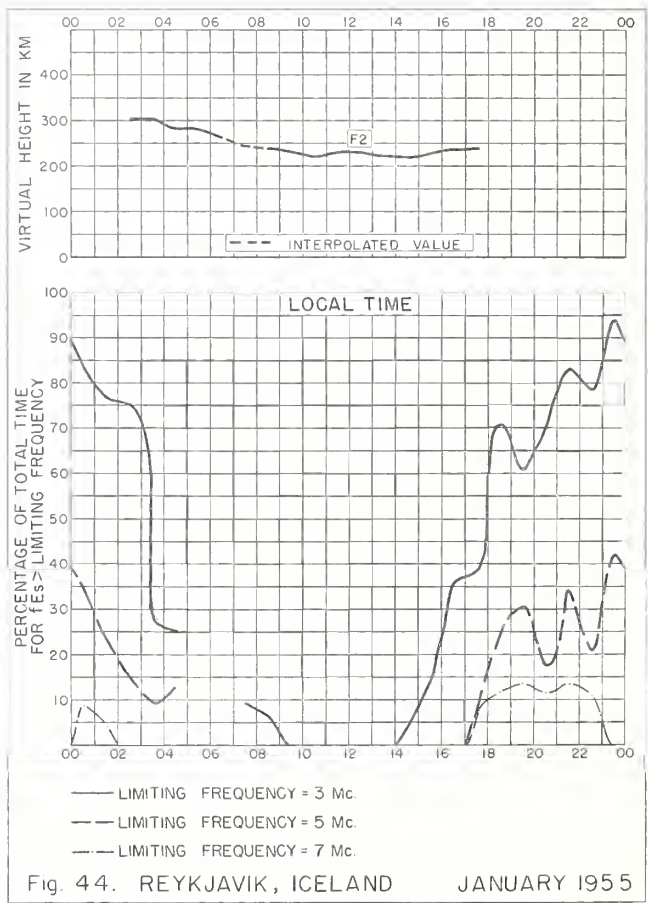
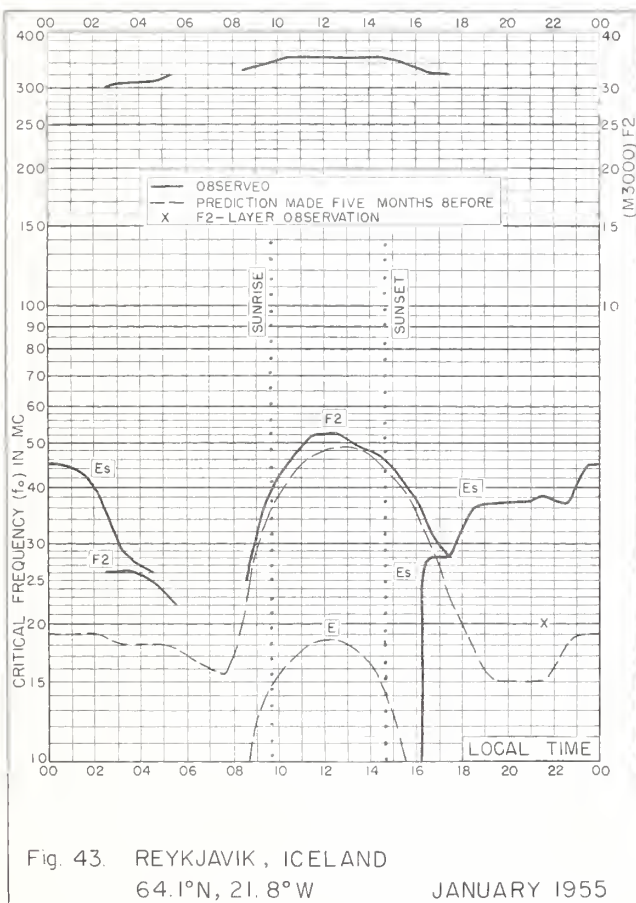
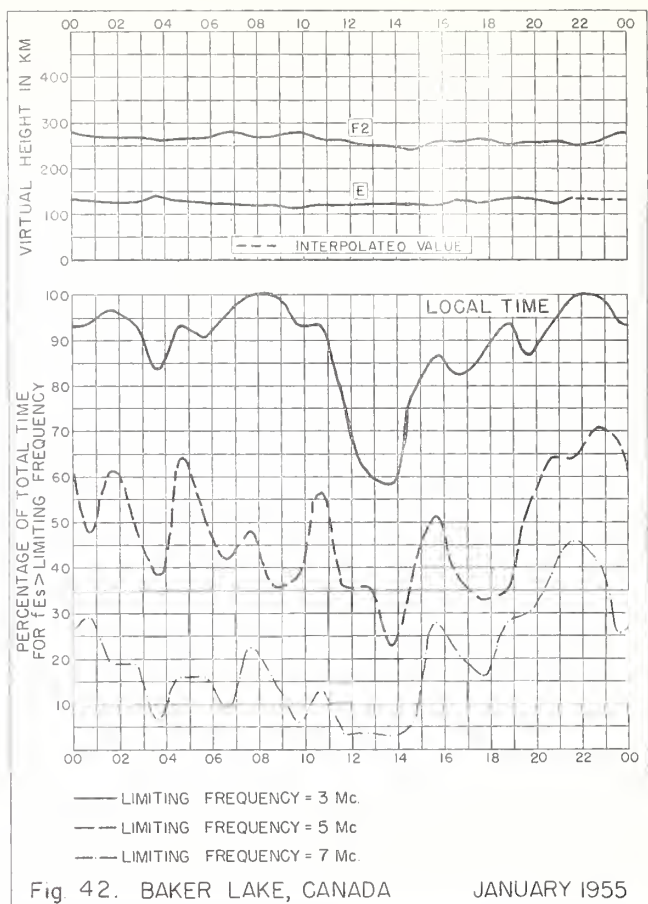
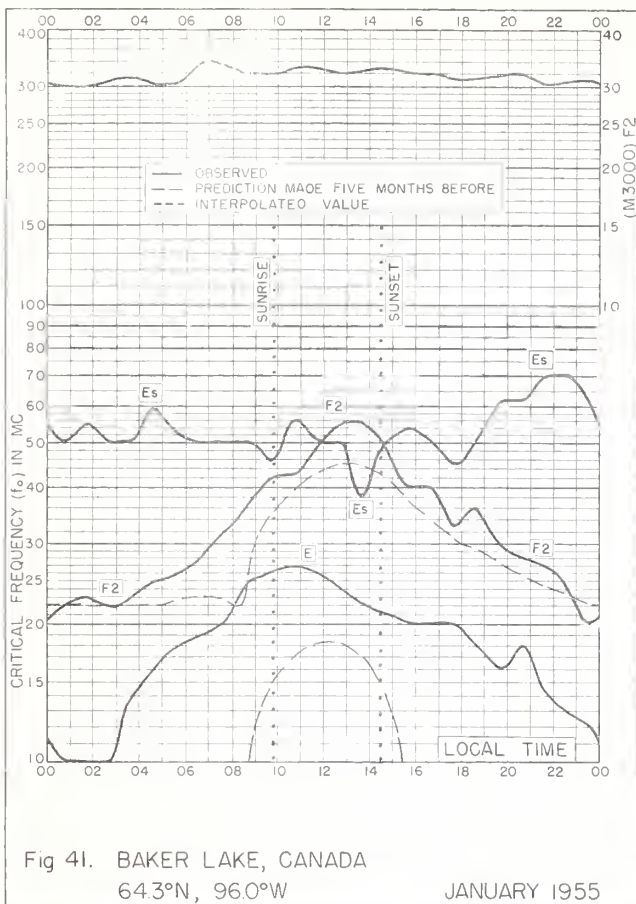


Fig. 40. FAIRBANKS, ALASKA

JANUARY 1955



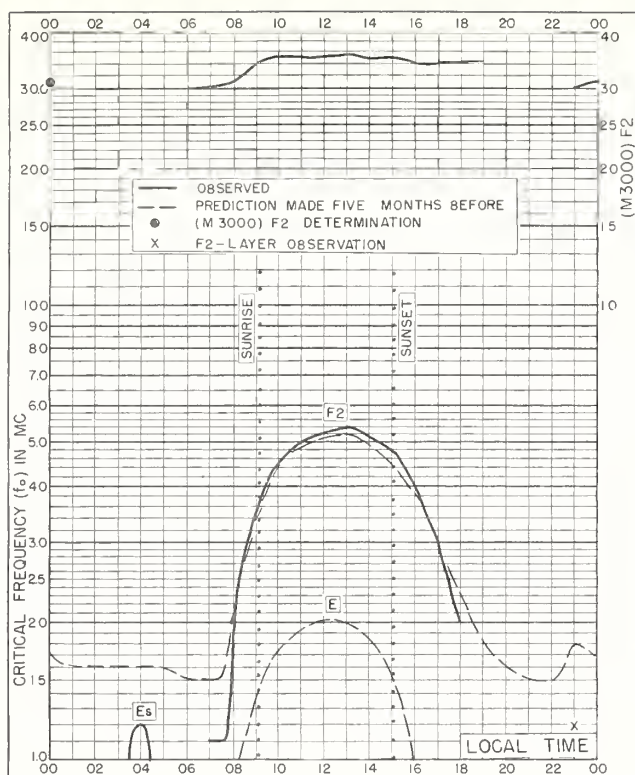


Fig. 45. ANCHORAGE, ALASKA
61.2°N, 149.9°W.

JANUARY 1955

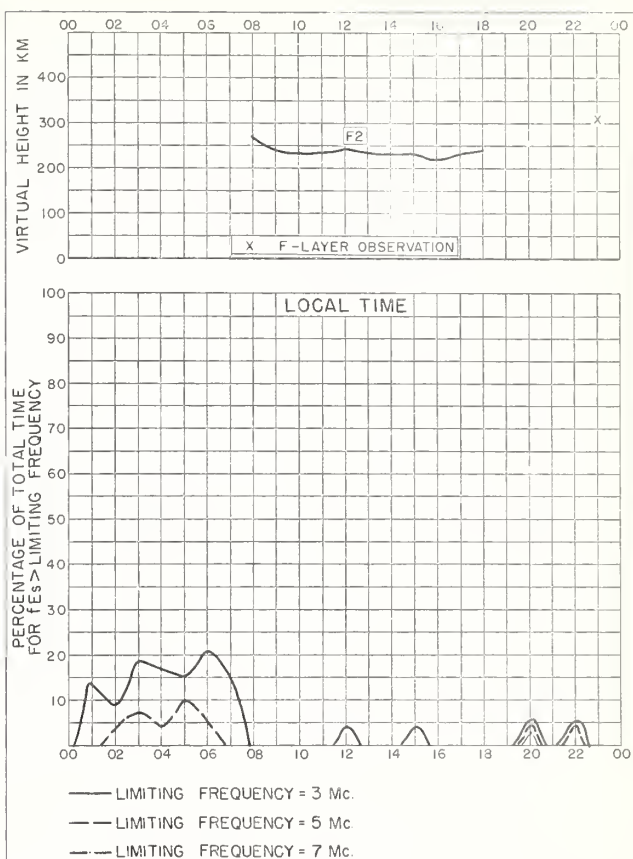


Fig. 46. ANCHORAGE, ALASKA

JANUARY 1955

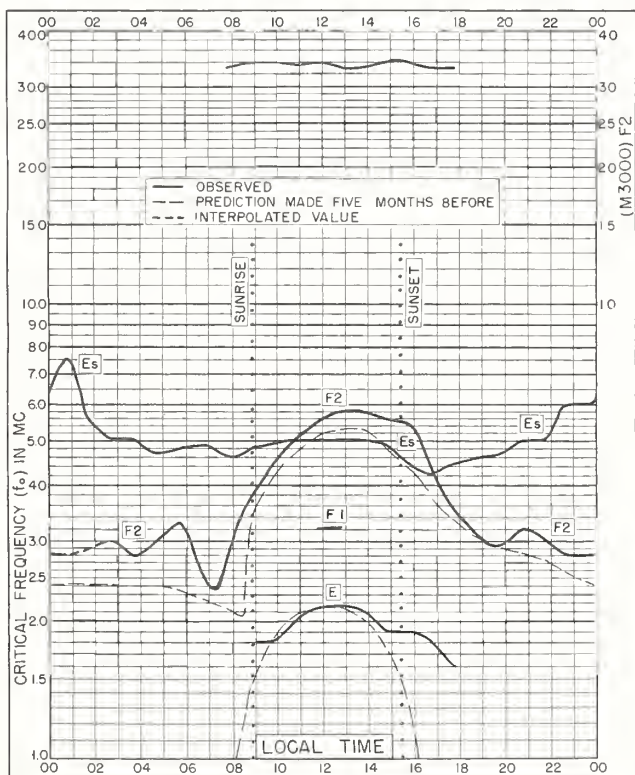


Fig. 47. CHURCHILL, CANADA
58.8°N, 94.2°W.

JANUARY 1955

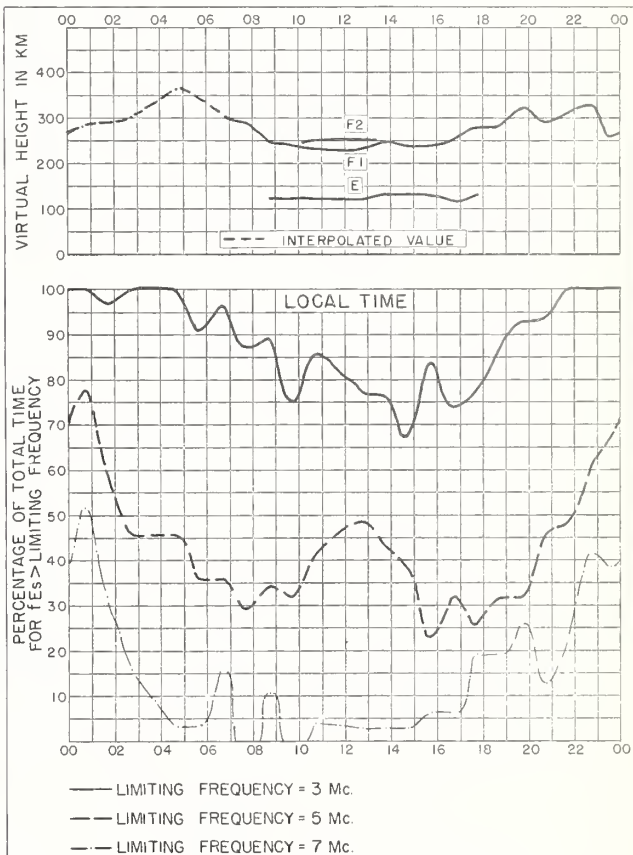


Fig. 48. CHURCHILL, CANADA

JANUARY 1955

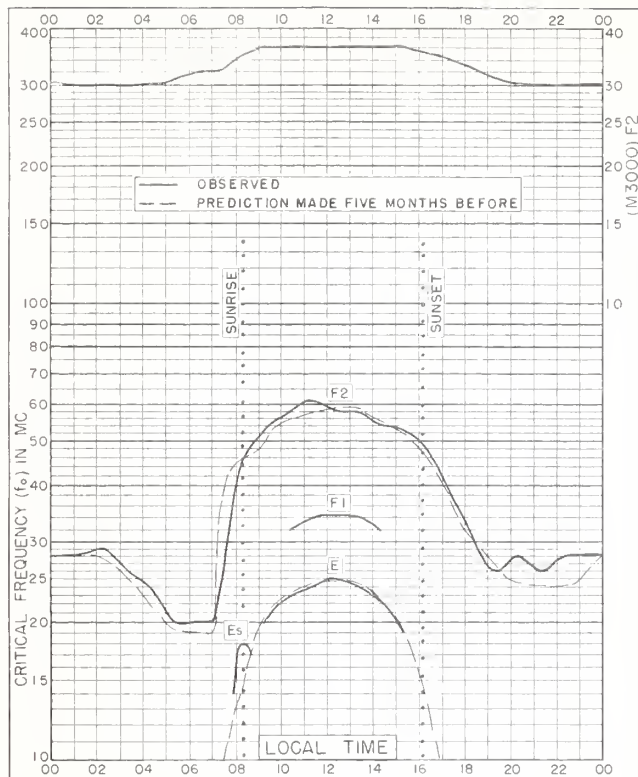


Fig. 49. De BILT, HOLLAND
52.1°N, 5.2°E

JANUARY 1955

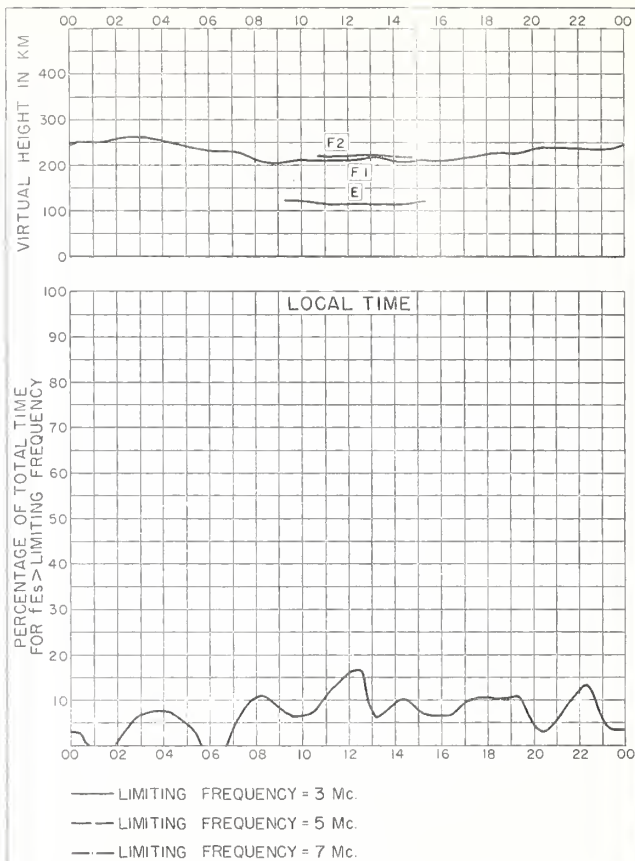


Fig. 50. De BILT, HOLLAND

JANUARY 1955

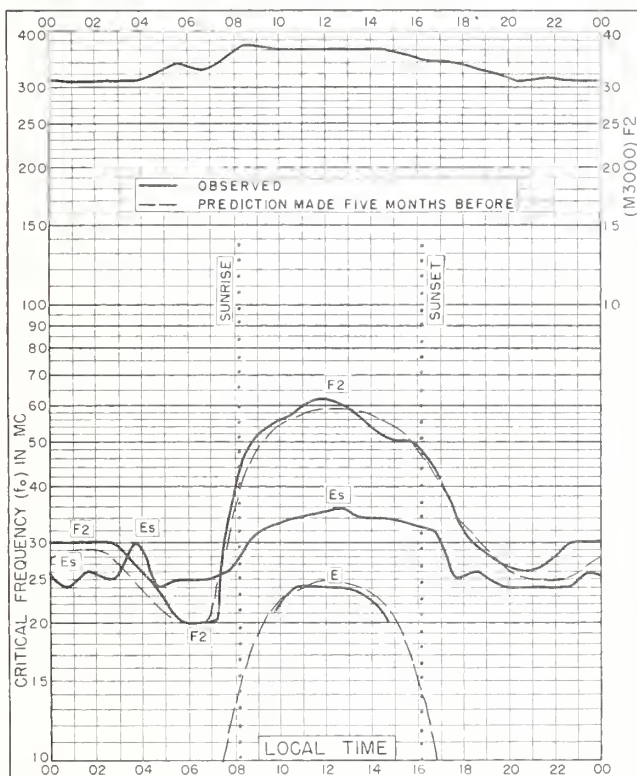


Fig. 51. LINDAU/HARZ, GERMANY
51.6°N, 10.1°E

JANUARY 1955

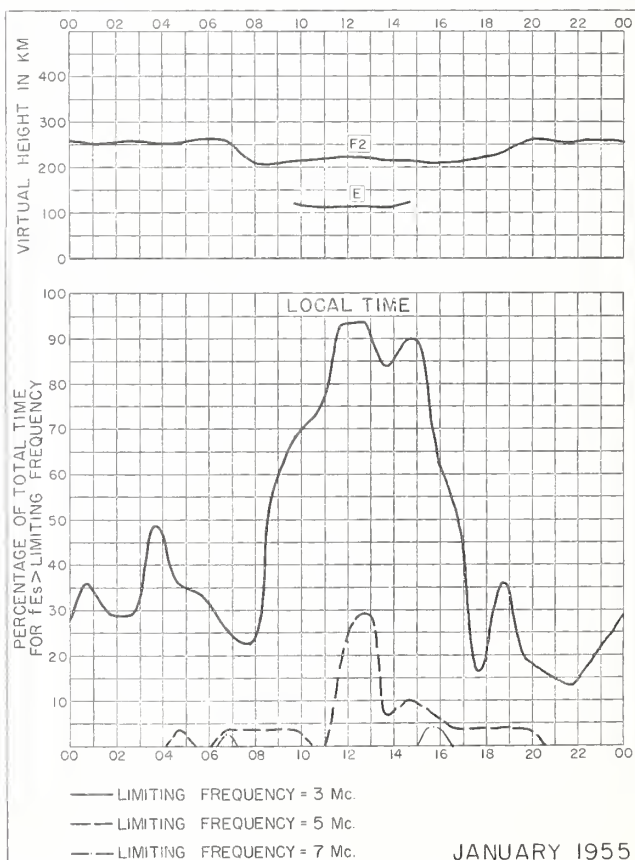


Fig. 52. LINDAU/HARZ, GERMANY

JANUARY 1955

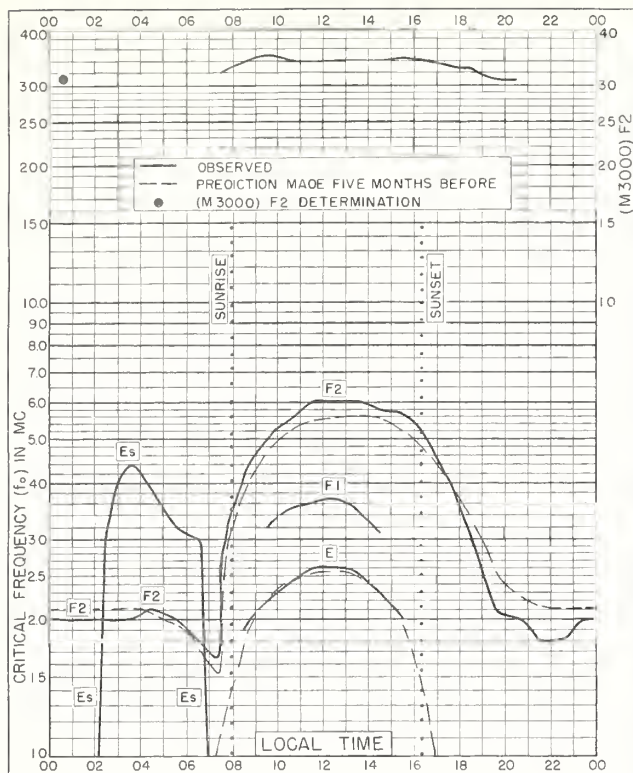


Fig. 53. WINNIPEG, CANADA
49.9°N, 97.4°W.

JANUARY 1955

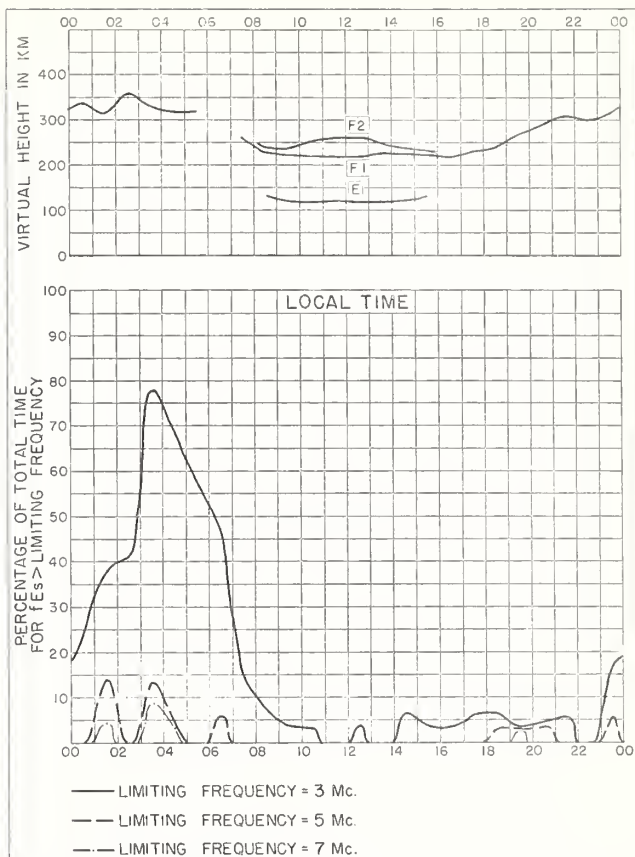


Fig. 54. WINNIPEG, CANADA

JANUARY 1955

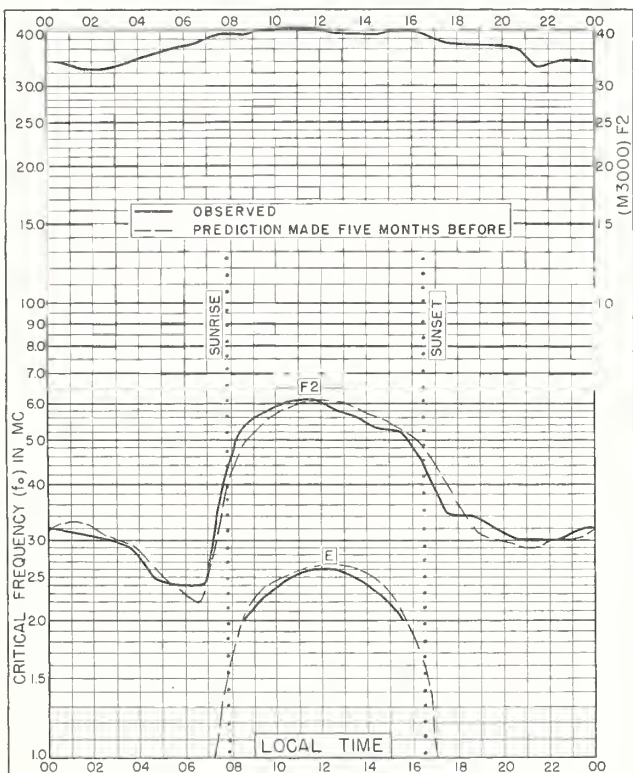


Fig. 55. SCHWARZENBURG, SWITZERLAND
46.8°N, 7.3°E

JANUARY 1955

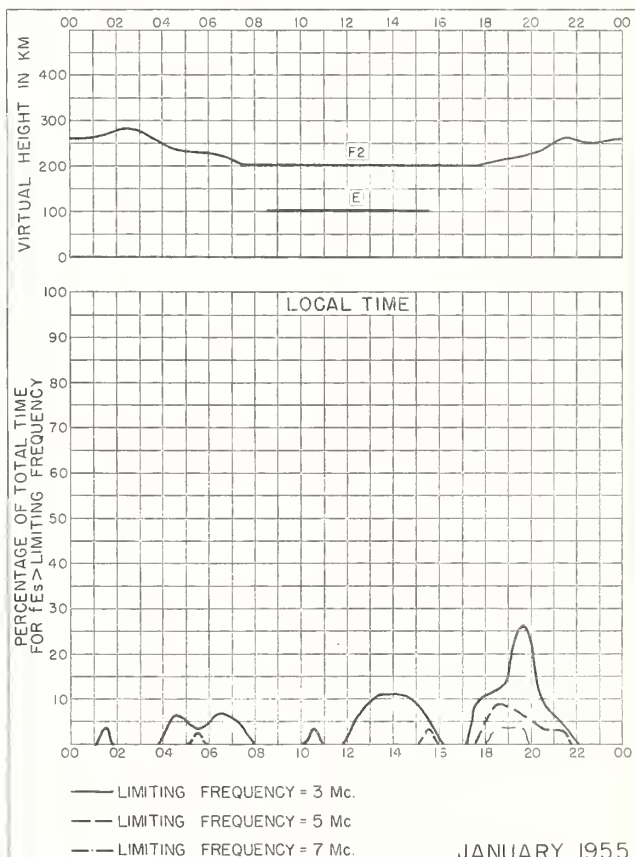


Fig. 56. SCHWARZENBURG, SWITZERLAND

JANUARY 1955

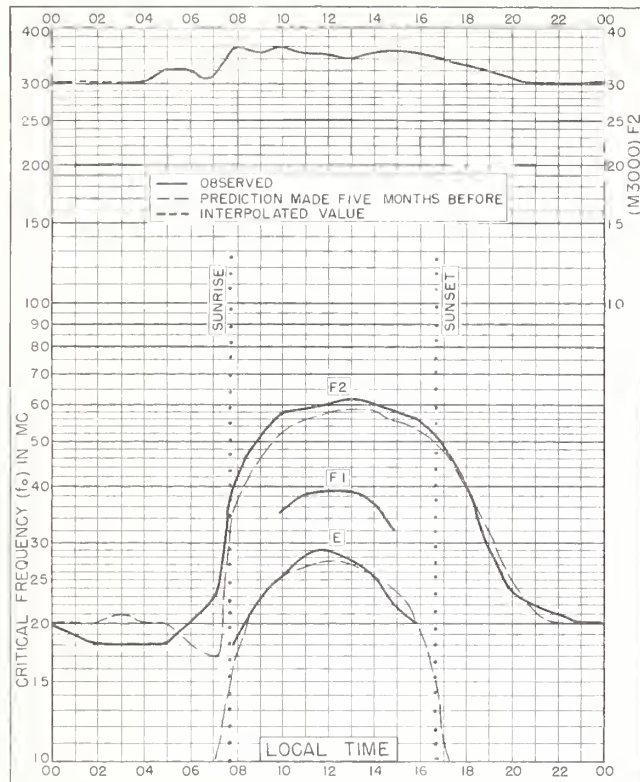


Fig. 57. OTTAWA, CANADA
45.4°N, 75.9°W

JANUARY 1955

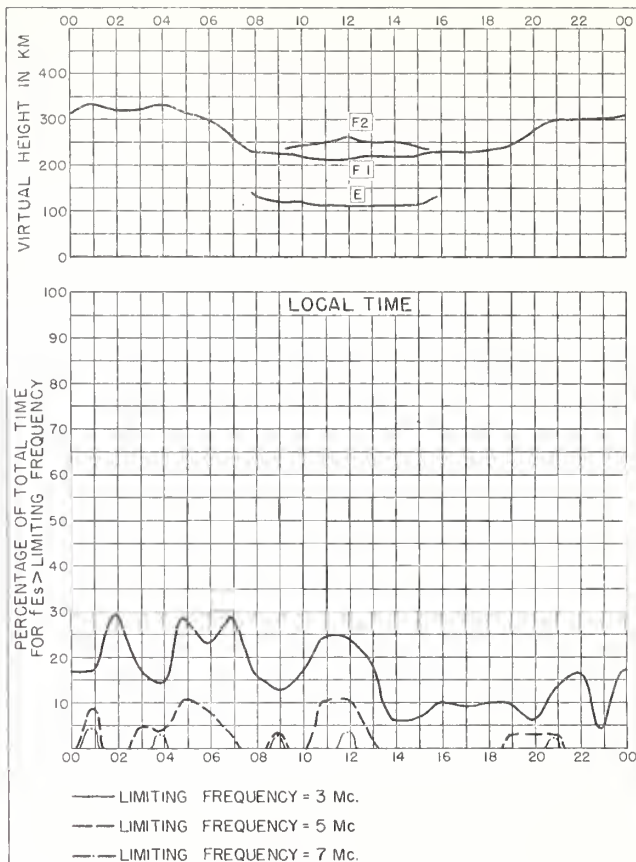


Fig. 58. OTTAWA, CANADA

JANUARY 1955

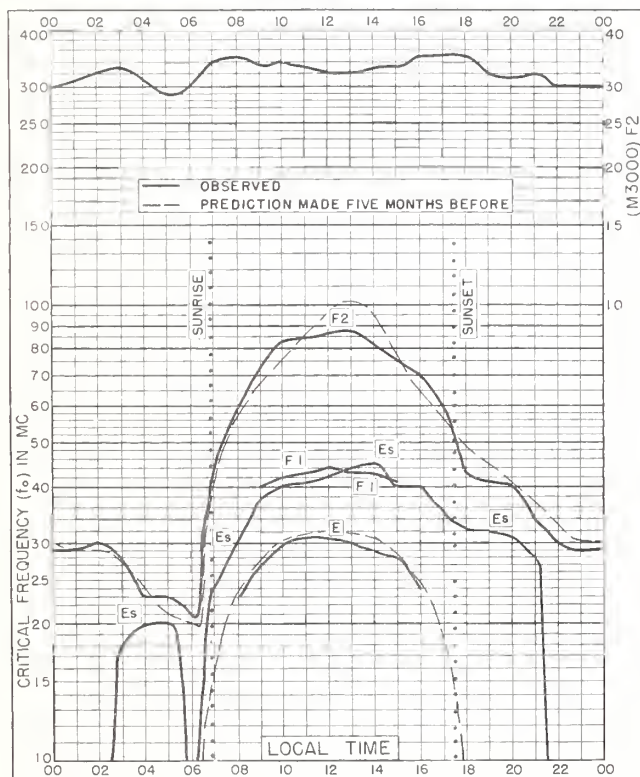


Fig. 59. OKINAWA I.
26.3°N, 127.8°E

JANUARY 1955

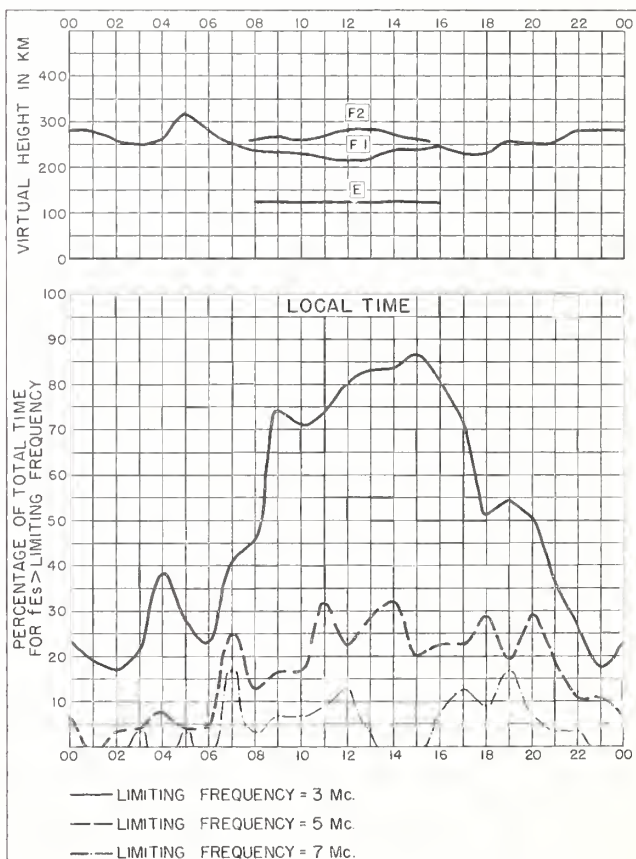


Fig. 60. OKINAWA I.

JANUARY 1955

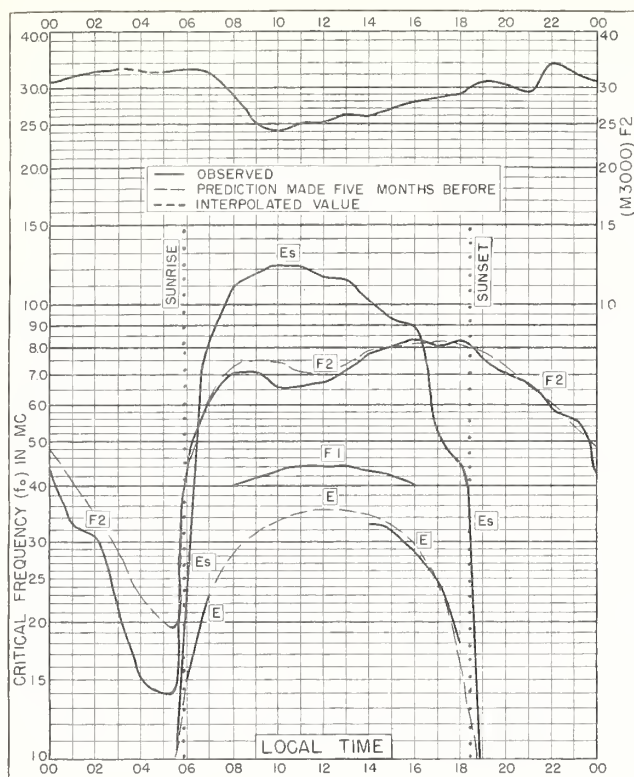


Fig. 61. HUANCAYO, PERU

12.0°S, 75.3°W

JANUARY 1955

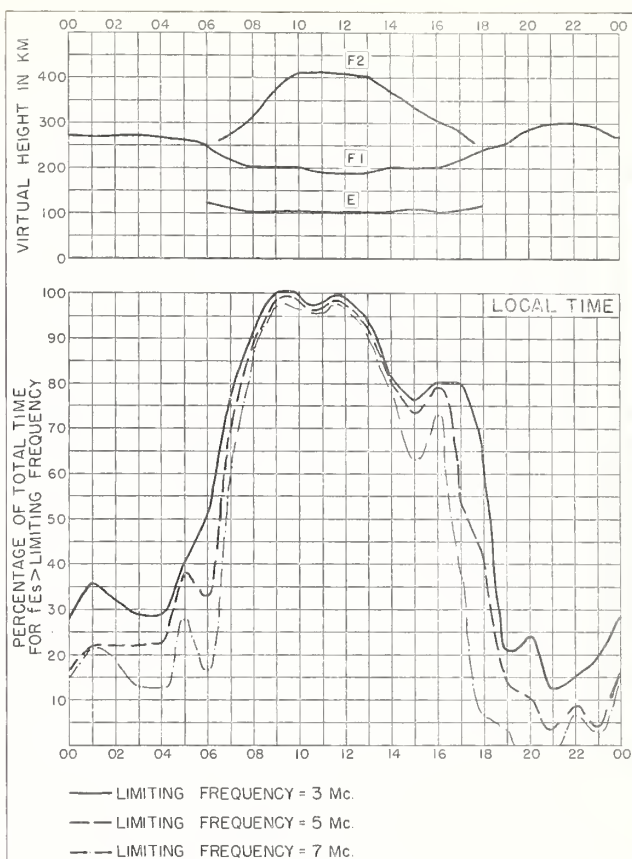


Fig. 62. HUANCAYO, PERU

JANUARY 1955

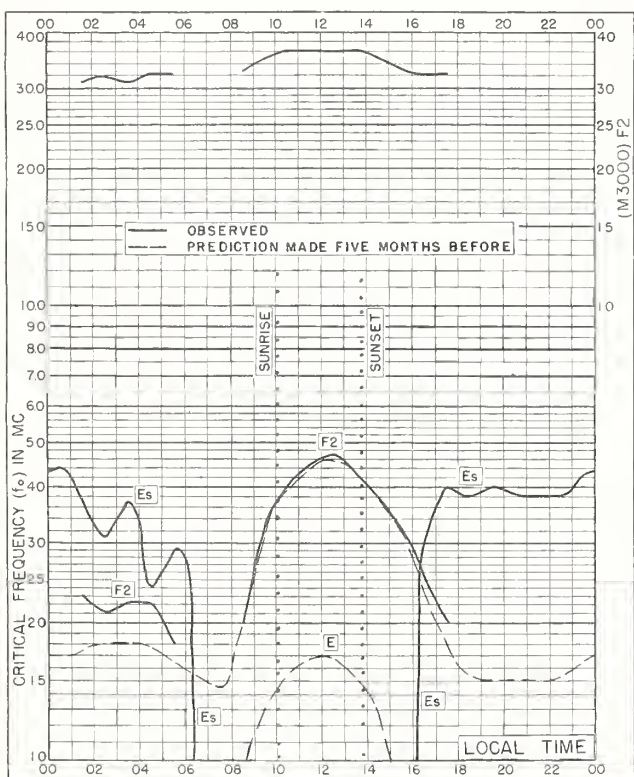


Fig. 63. REYKJAVIK, ICELAND

64.1°N, 21.8°W

DECEMBER 1954

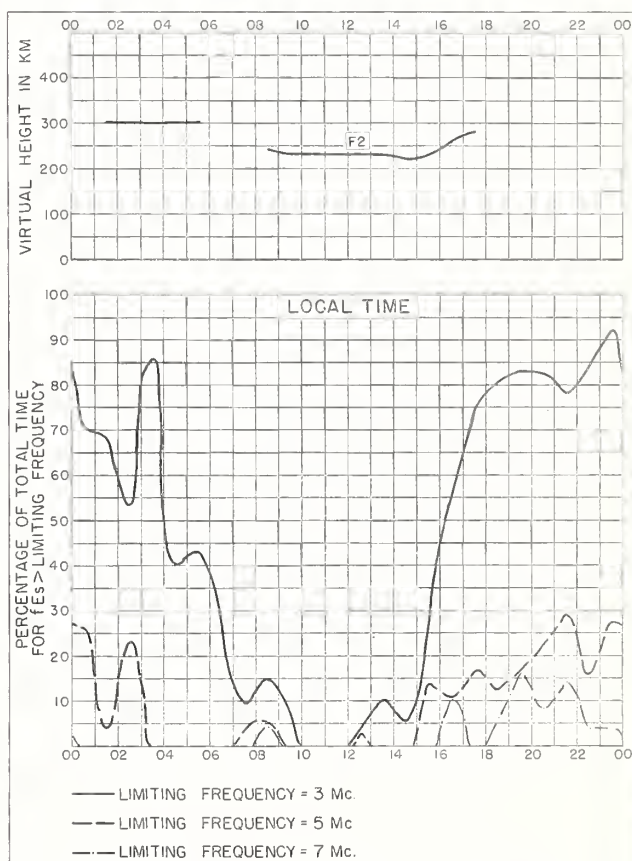


Fig. 64. REYKJAVIK, ICELAND

DECEMBER 1954

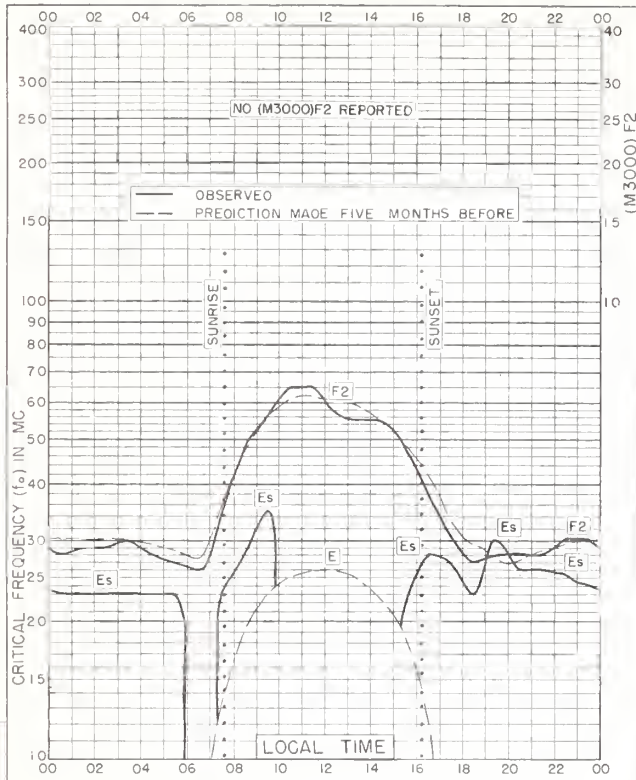


Fig. 65. WAKKANAI, JAPAN
45.4°N, 141.7°E.

DECEMBER 1954

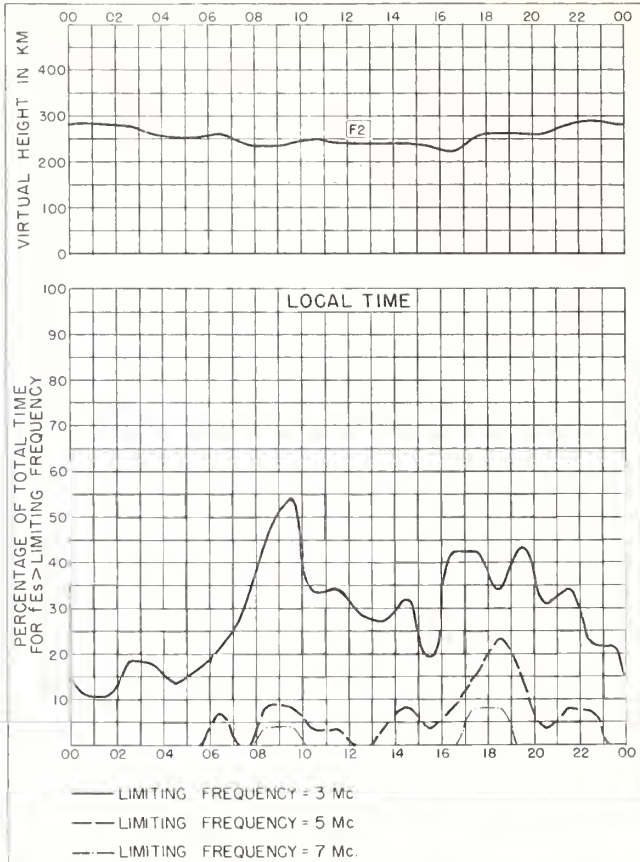


Fig. 66. WAKKANAI, JAPAN

DECEMBER 1954

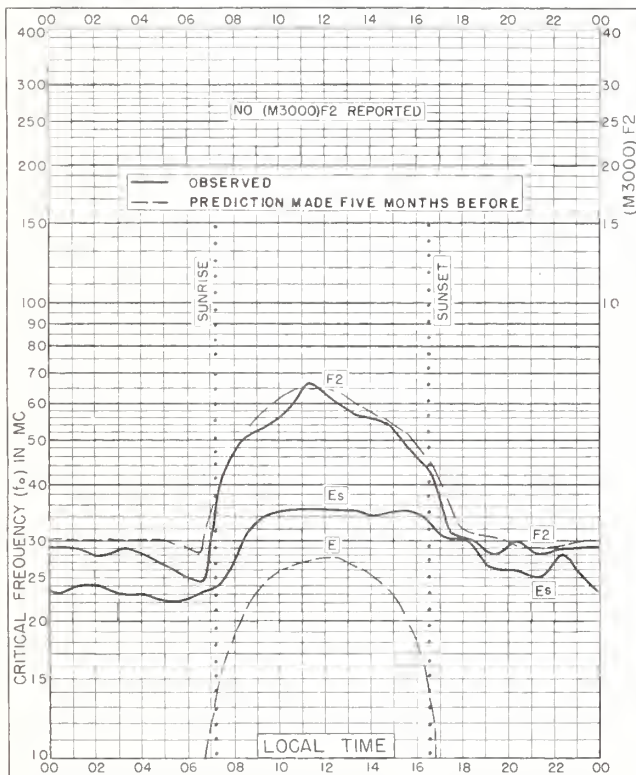


Fig. 67. AKITA, JAPAN
39.7°N, 140.1°E

DECEMBER 1954

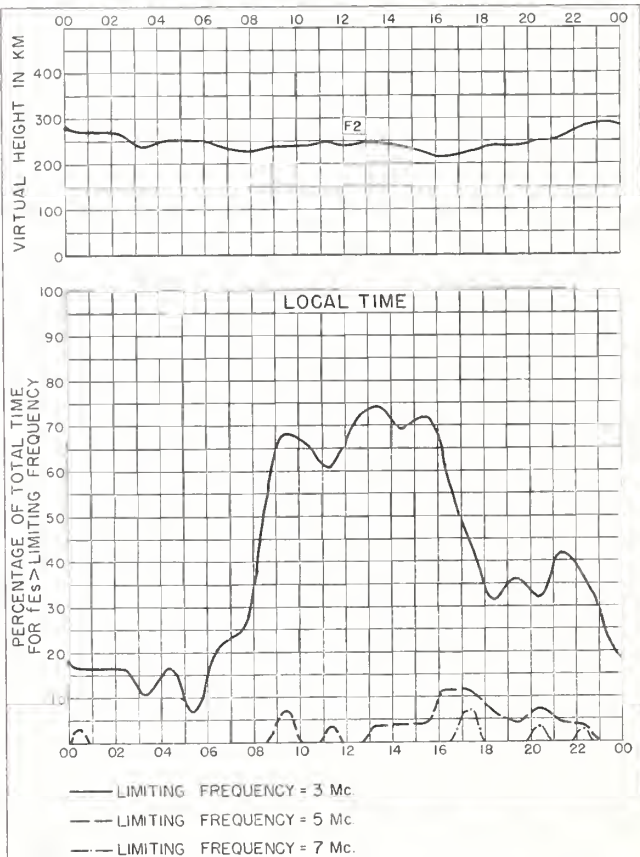


Fig. 68. AKITA, JAPAN

DECEMBER 1954

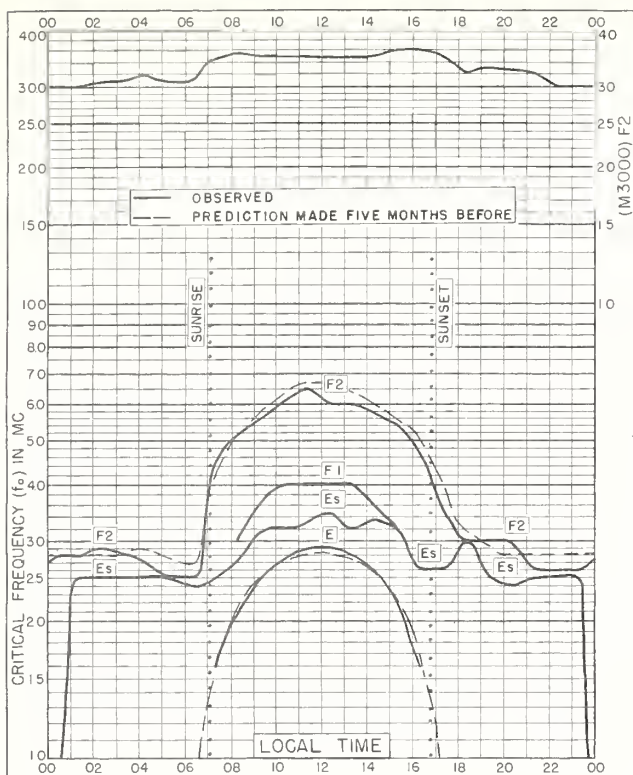


Fig. 69. TOKYO, JAPAN
35.7°N, 139.5°E

DECEMBER 1954

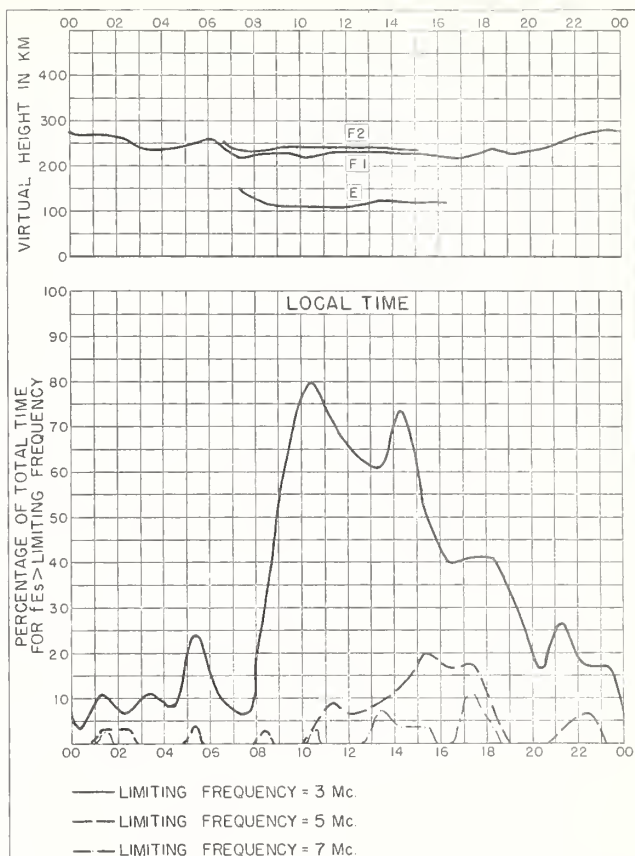


Fig. 70. TOKYO, JAPAN

DECEMBER 1954

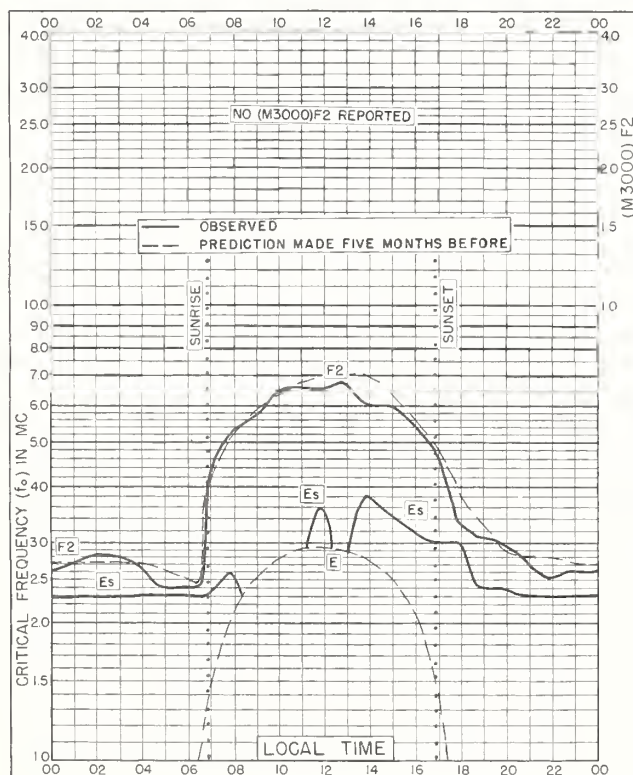


Fig. 71. YAMAGAWA, JAPAN
31.2°N, 130.6°E.

DECEMBER 1954

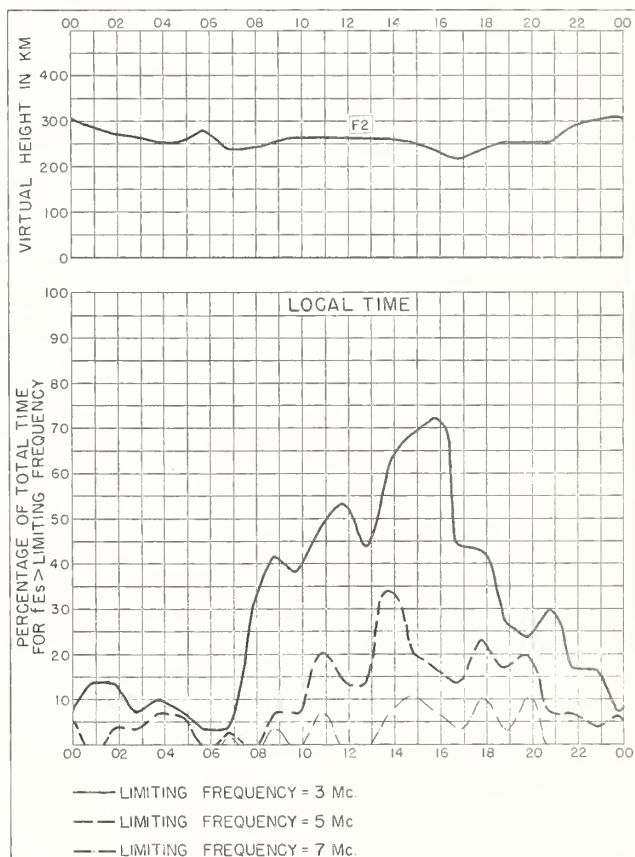


Fig. 72. YAMAGAWA, JAPAN

DECEMBER 1954

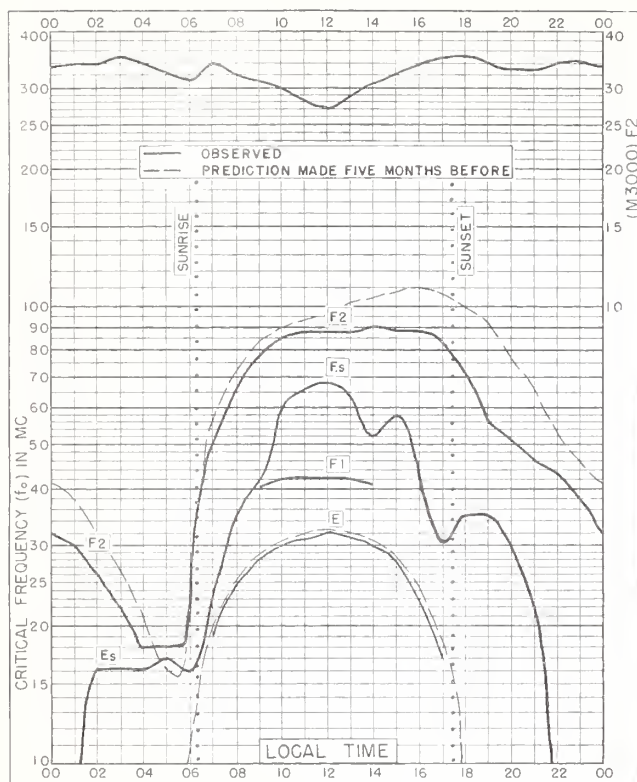


Fig 73. BAGUIO, P.I.
16.4°N, 120.6°E.

DECEMBER 1954

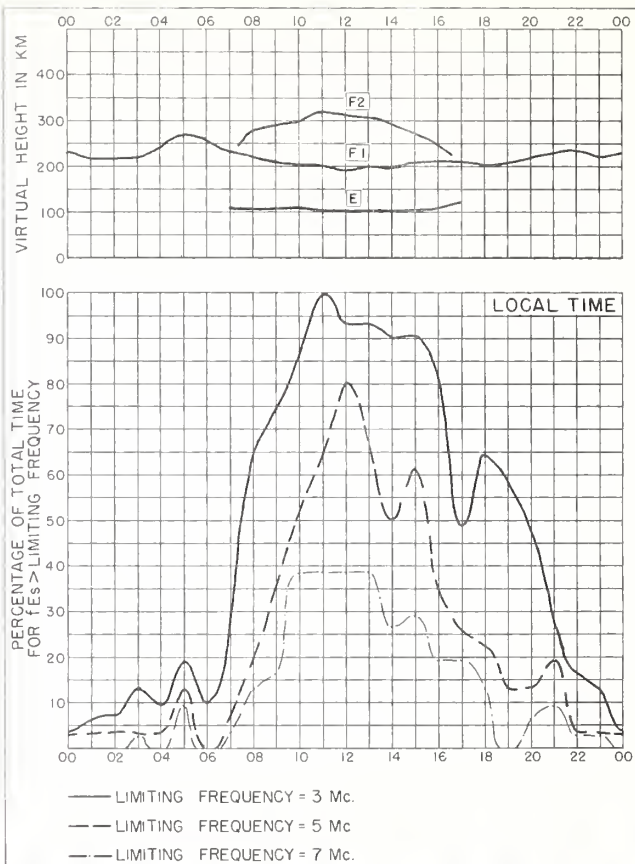


Fig 74. BAGUIO, P.I.

DECEMBER 1954

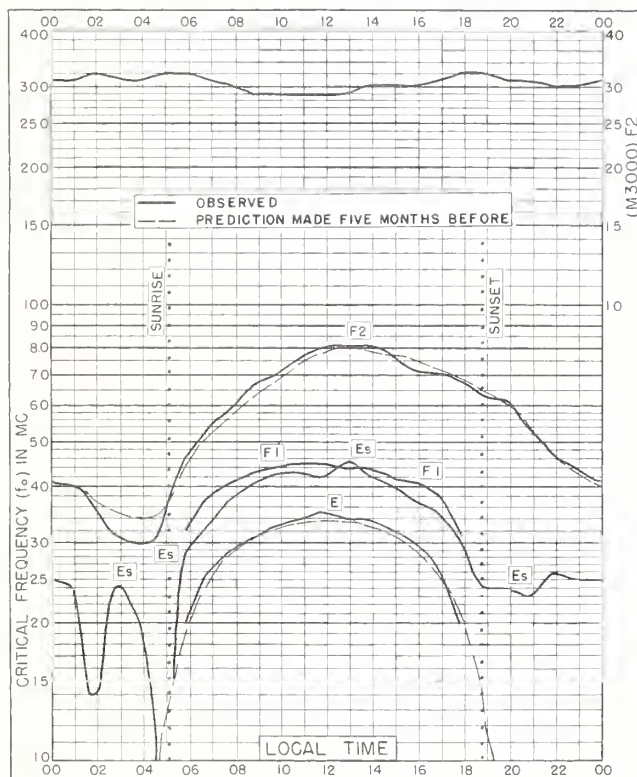


Fig 75. JOHANNESBURG, UNION OF S. AFRICA
26.2°S, 28.1°E.

DECEMBER 1954

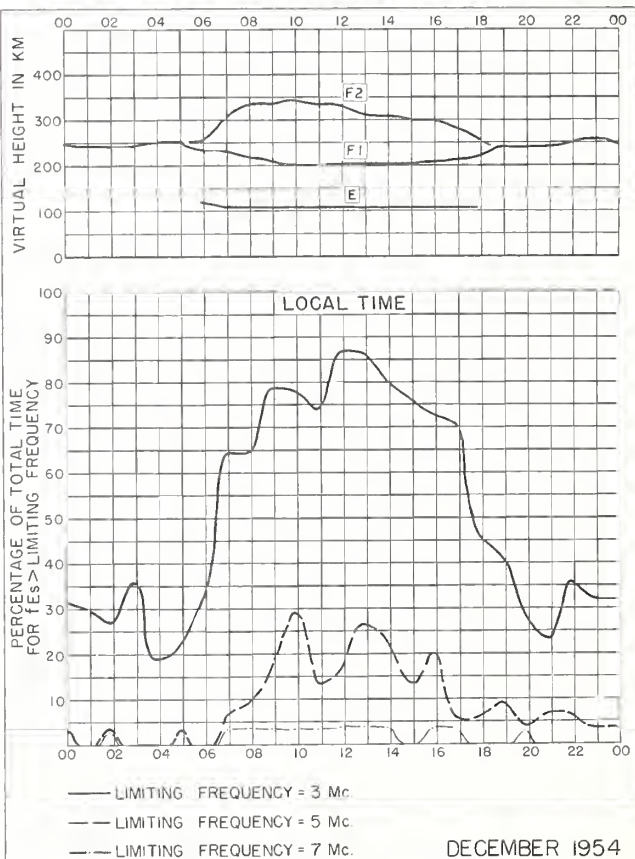


Fig 76. JOHANNESBURG, UNION OF S. AFRICA

DECEMBER 1954

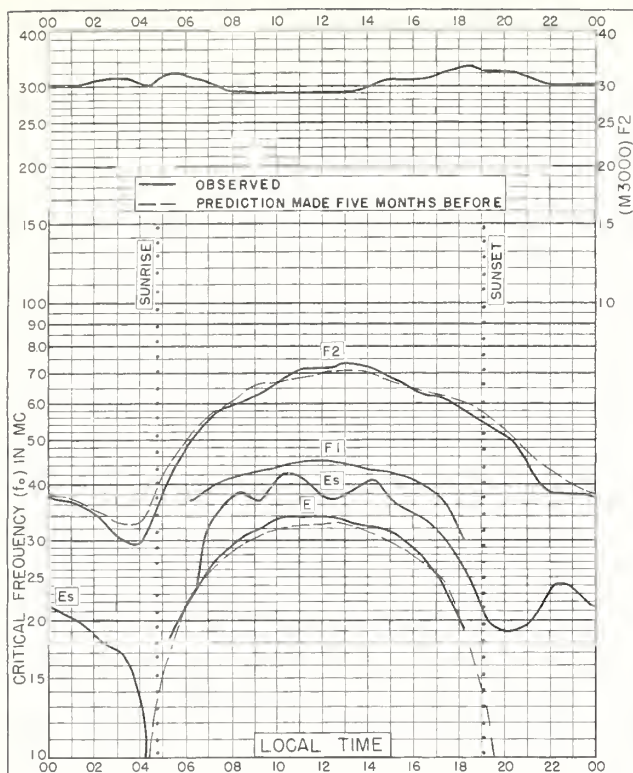


Fig. 77. CAPETOWN, UNION OF S. AFRICA
34°S, 18°E. DECEMBER 1954

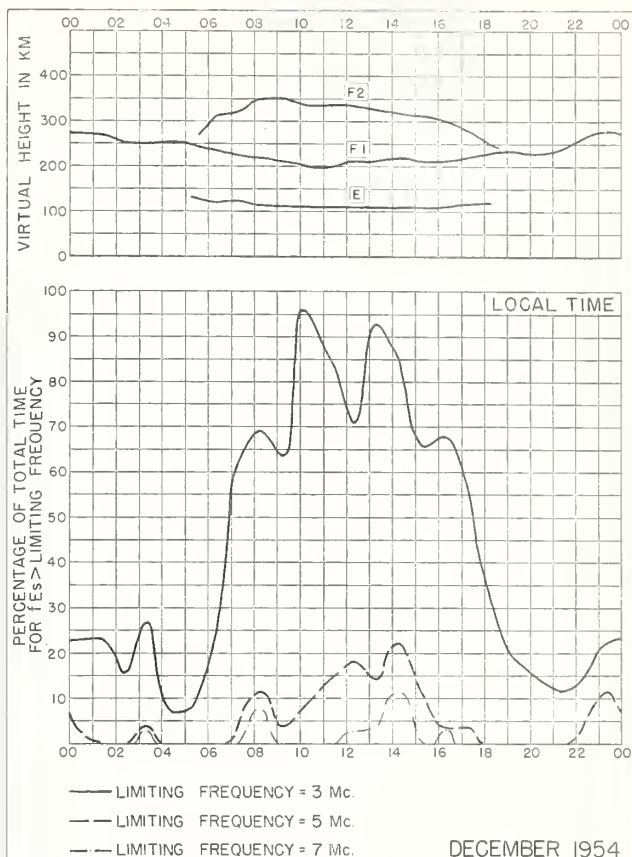


Fig. 78. CAPETOWN, UNION OF S. AFRICA

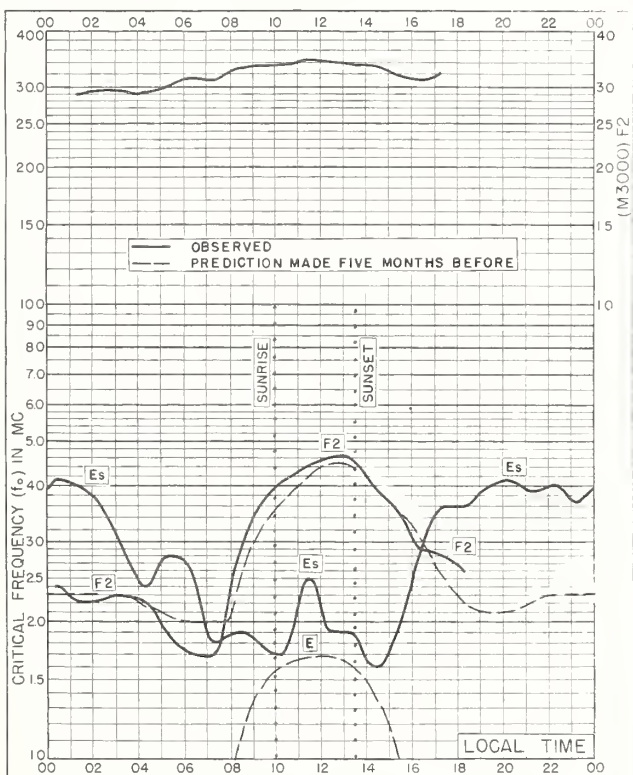


Fig. 79. TROMSØ, NORWAY
69.7°N, 19.0°E. NOVEMBER 1954

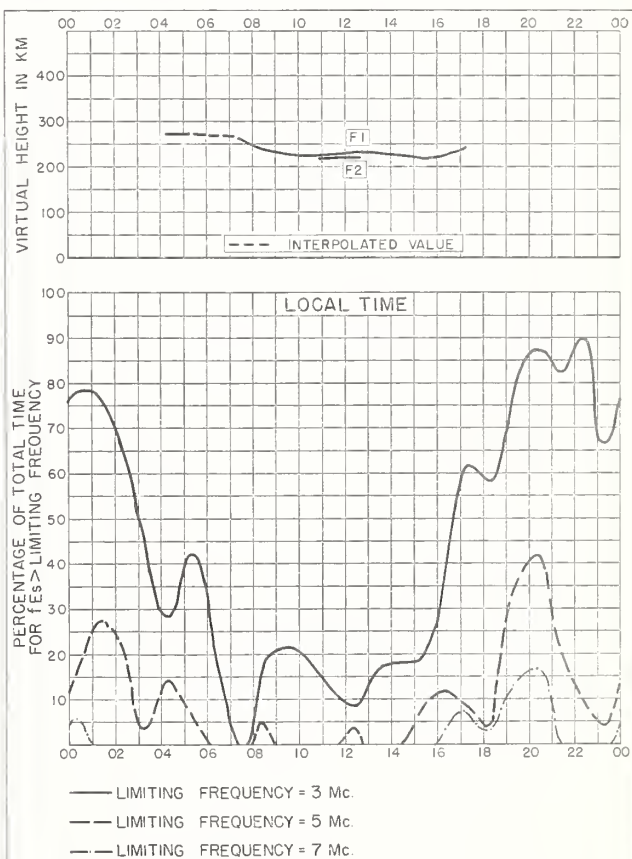


Fig. 80. TROMSØ, NORWAY NOVEMBER 1954

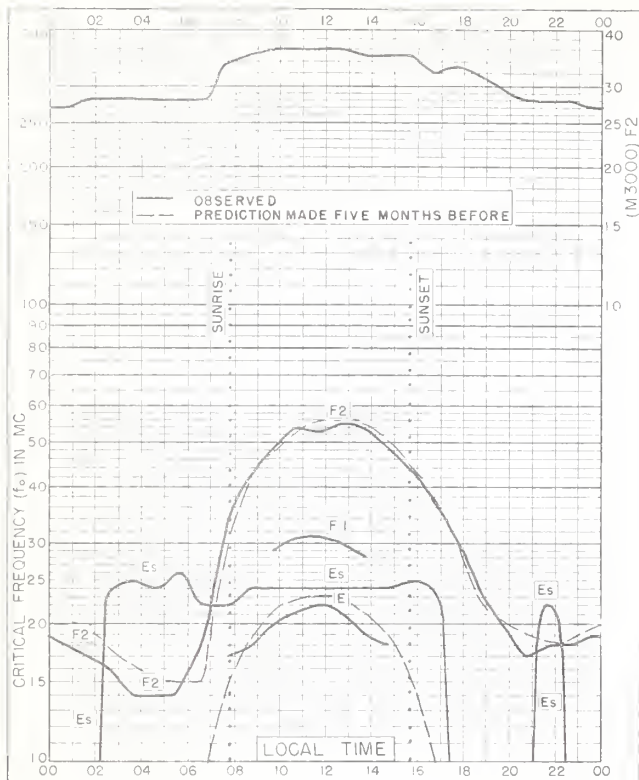


Fig. 81. INVERNESS, SCOTLAND
57.4°N, 4.2°W
NOVEMBER 1954

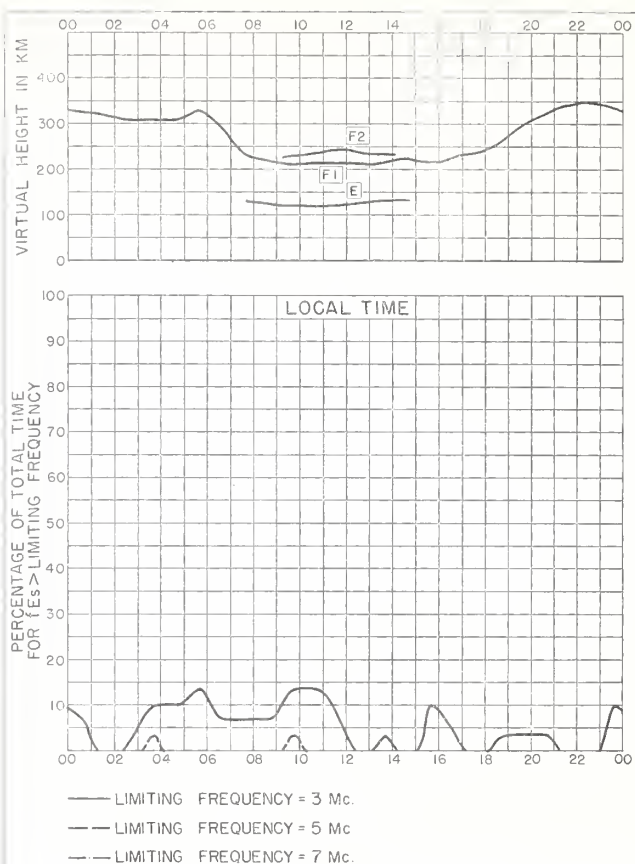


Fig. 82. INVERNESS, SCOTLAND
NOVEMBER 1954

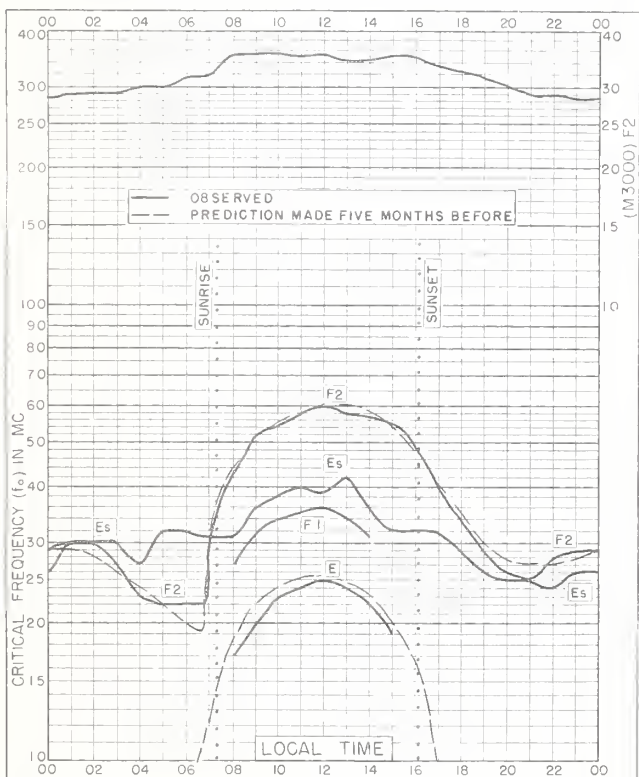


Fig. 83. SLOUGH, ENGLAND
51.5°N, 0.6°W
NOVEMBER 1954

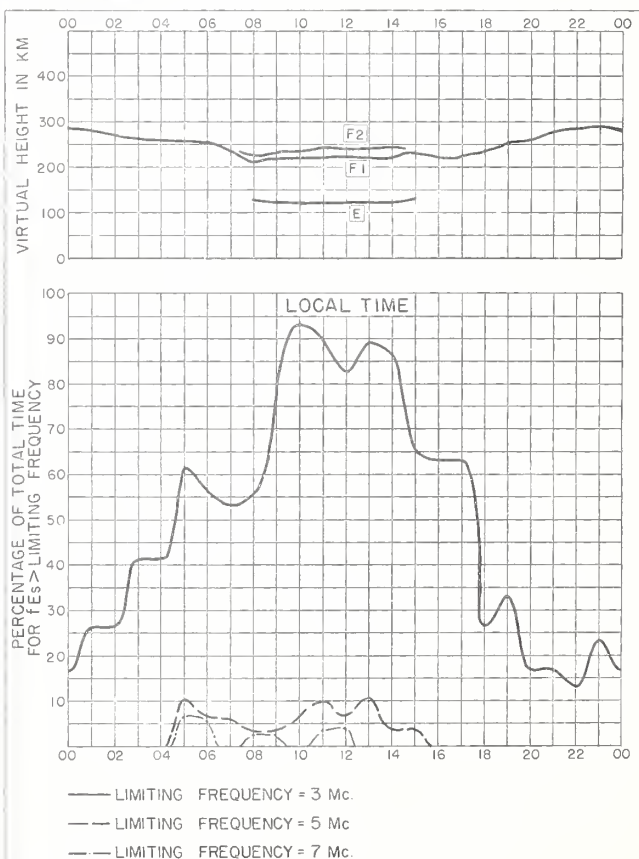


Fig. 84. SLOUGH, ENGLAND
NOVEMBER 1954

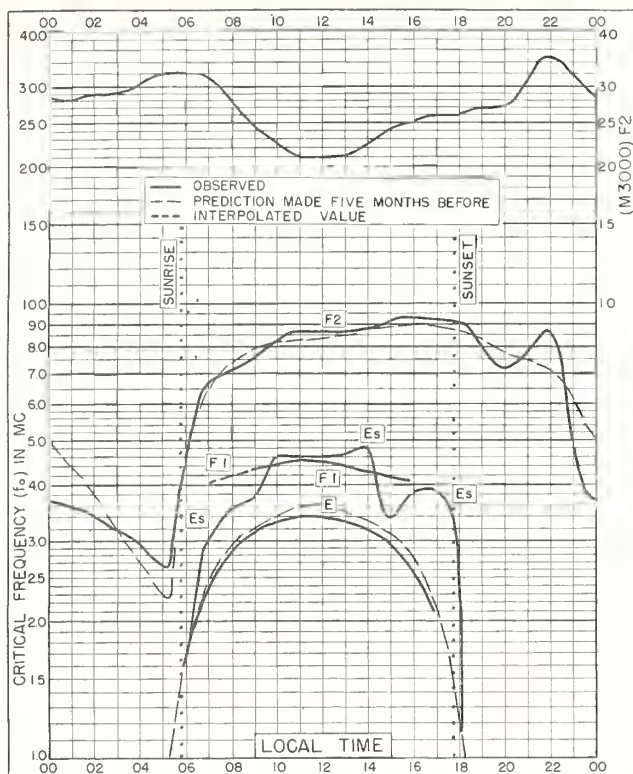


Fig. 85. SINGAPORE, BRITISH MALAYA
1.3°N, 103.8°E NOVEMBER 1954

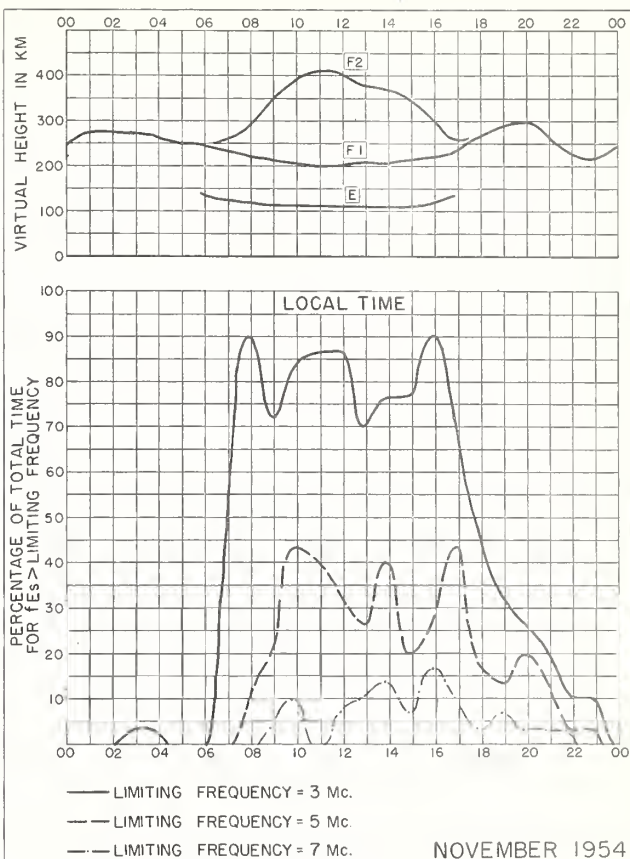


Fig. 86. SINGAPORE, BRITISH MALAYA

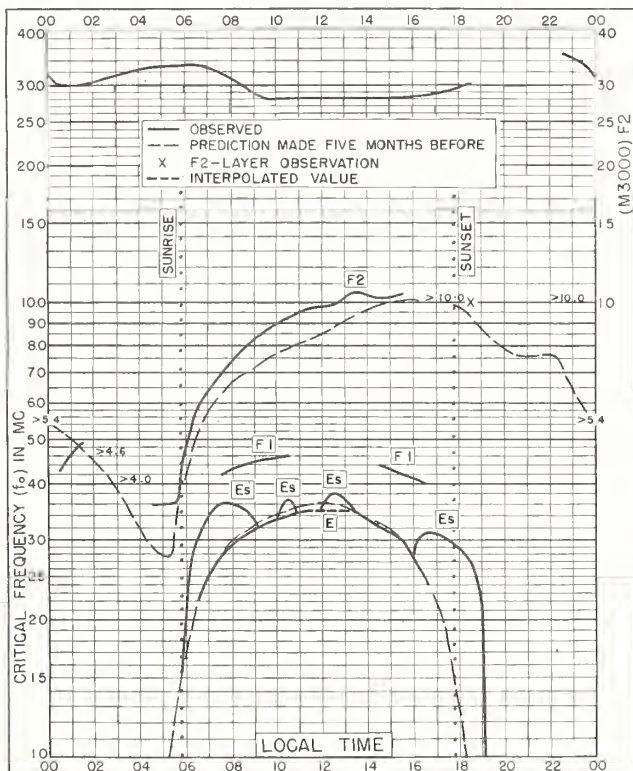


Fig. 87. NAIROBI, KENYA
1.3°S, 36.8°E NOVEMBER 1954

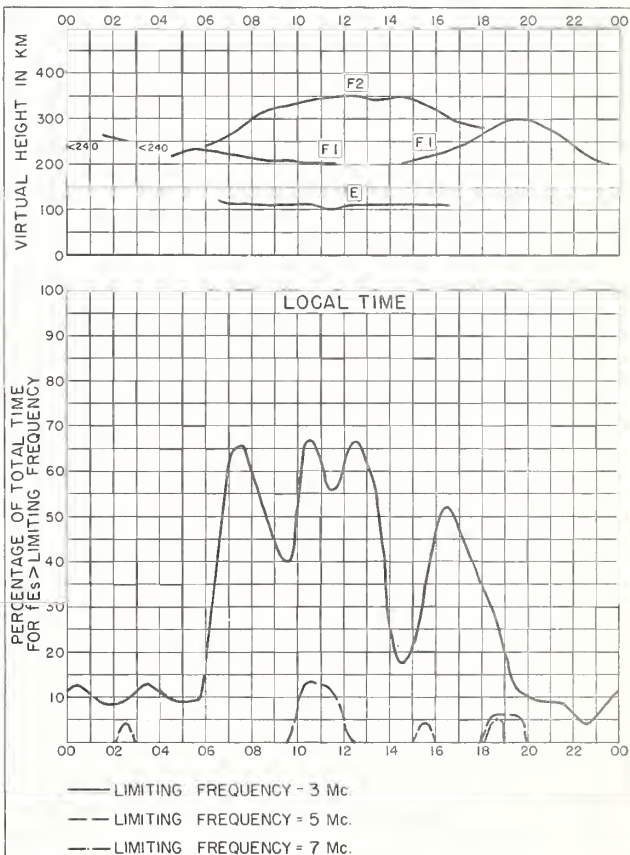


Fig. 88. NAIROBI, KENYA NOVEMBER 1954

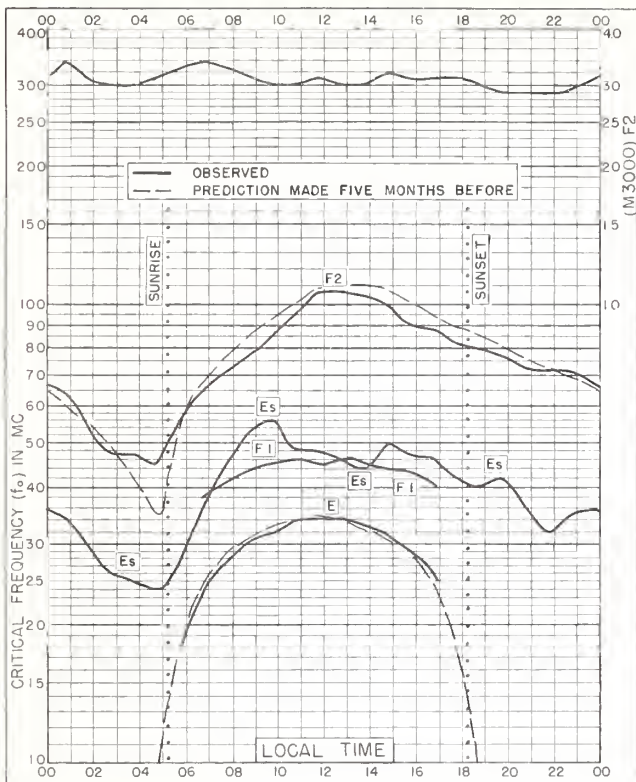


Fig. 89. RAROTONGA I.
21.3°S, 159.8°W

NOVEMBER 1954

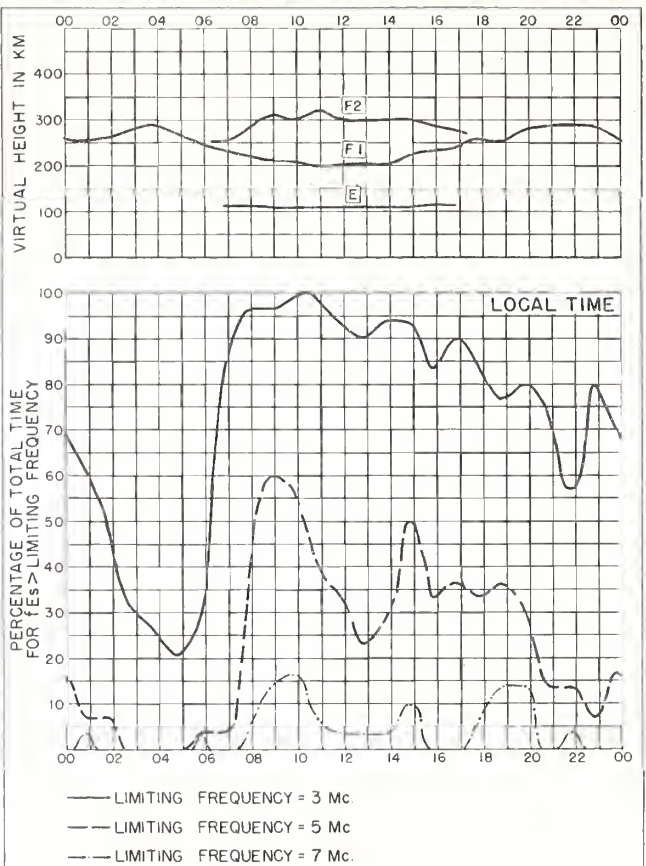


Fig. 90. RAROTONGA I.

NOVEMBER 1954

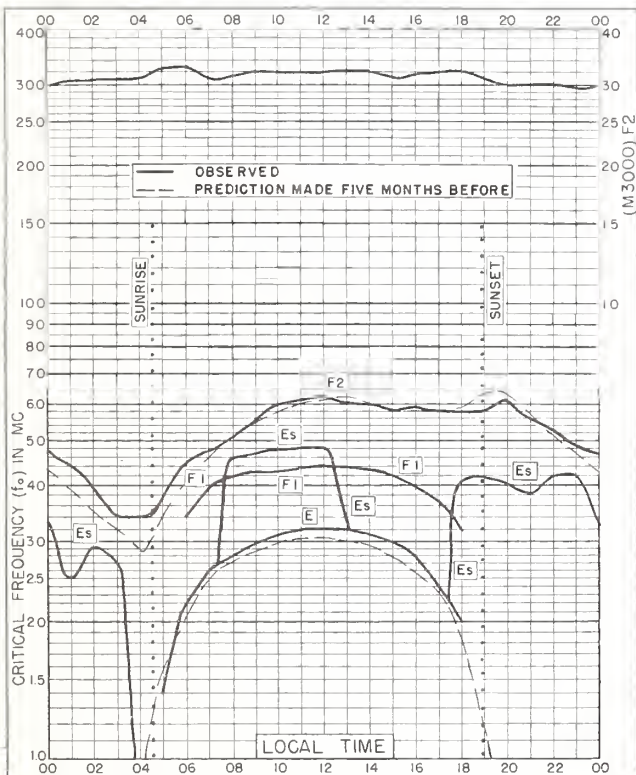


Fig. 91. CHRISTCHURCH, NEW ZEALAND
43.6°S, 172.8°E

NOVEMBER 1954

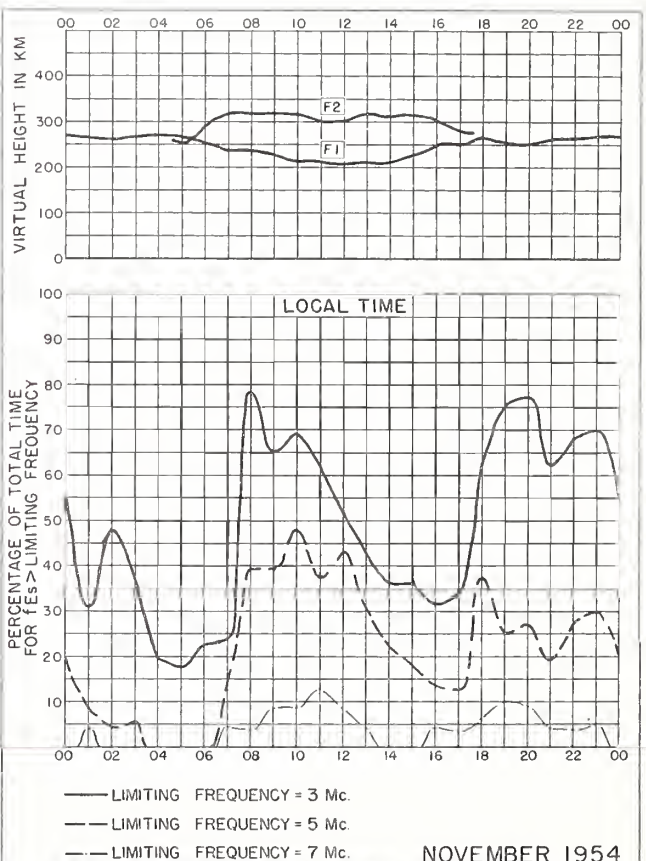


Fig. 92. CHRISTCHURCH, NEW ZEALAND

NOVEMBER 1954

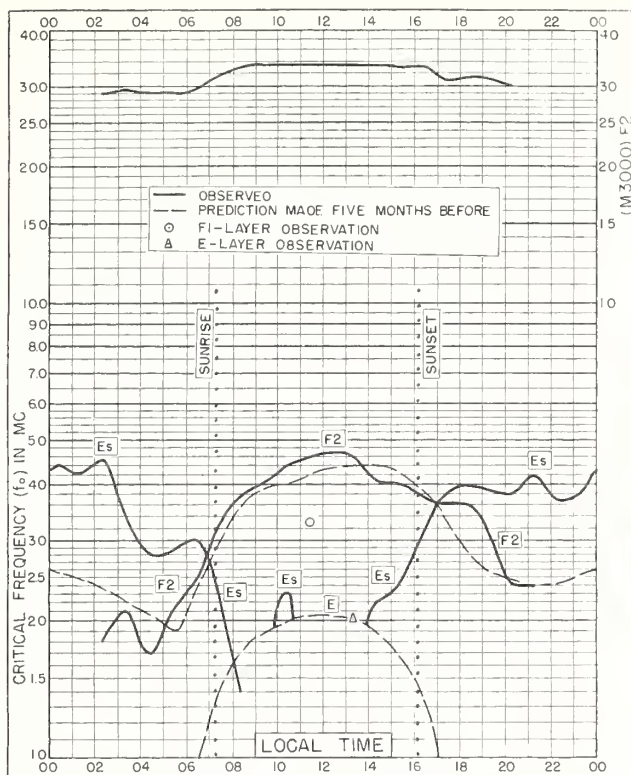


Fig. 93. TROMSØ, NORWAY
69.7°N, 19.0°E

OCTOBER 1954

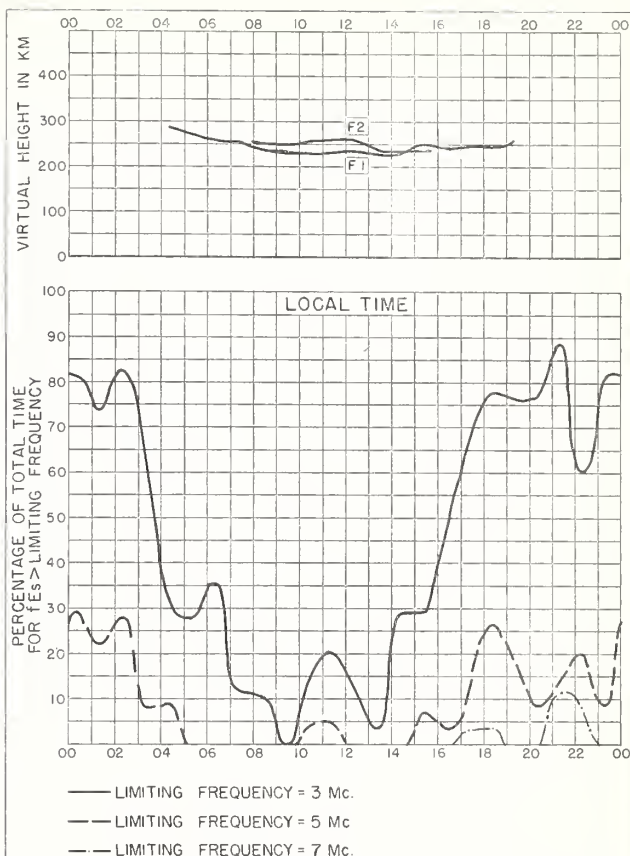


Fig. 94. TROMSØ, NORWAY

OCTOBER 1954

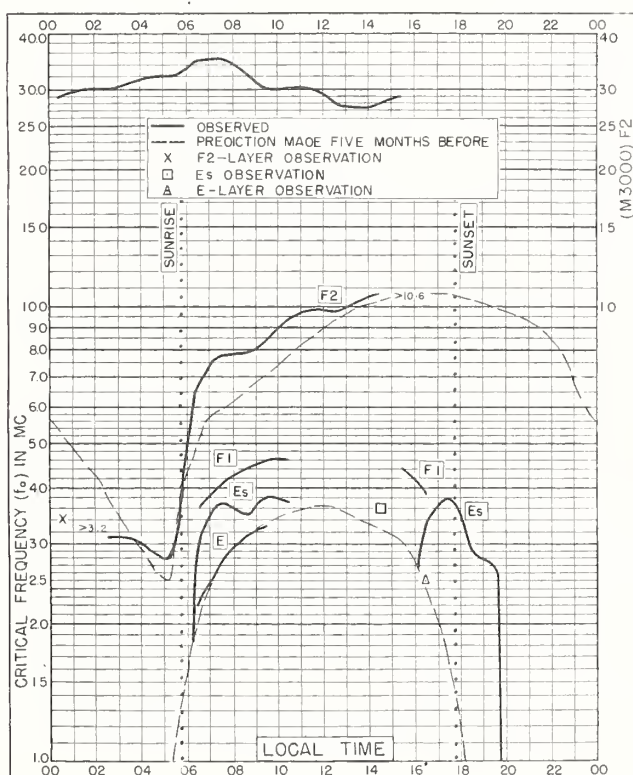


Fig. 95. NAIROBI, KENYA
1.3°S, 36.8°E.

OCTOBER 1954

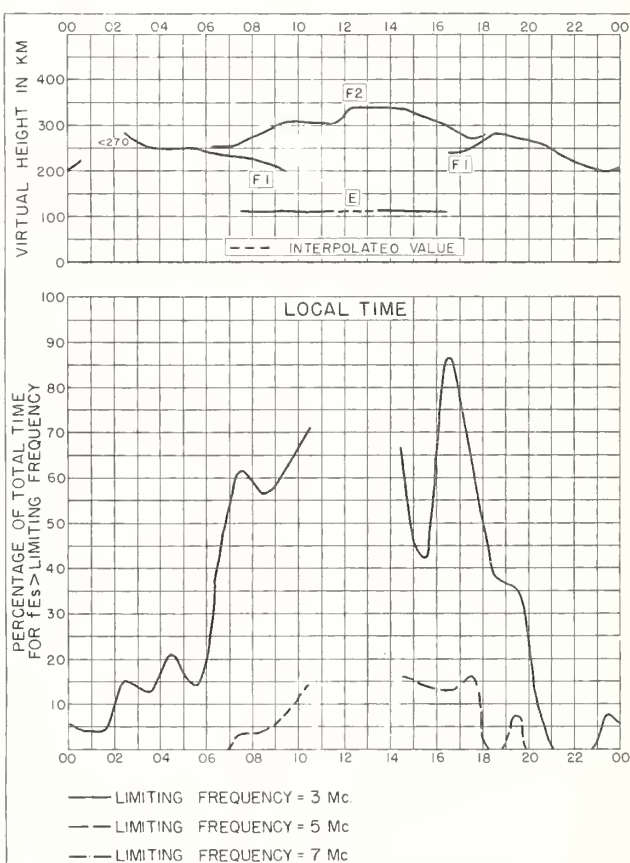


Fig. 96. NAIROBI, KENYA

OCTOBER 1954

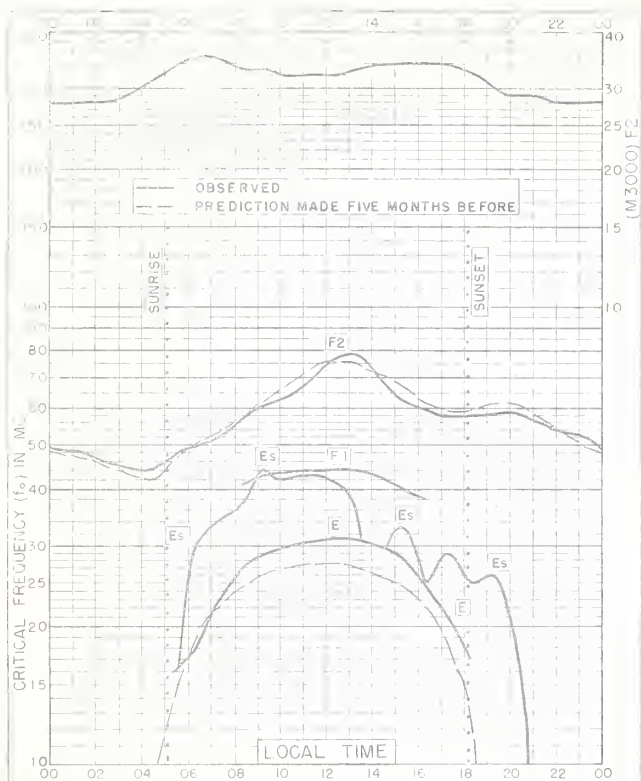


Fig 97. FALKLAND IS.
51.7°S, 57.8°W

OCTOBER 1954

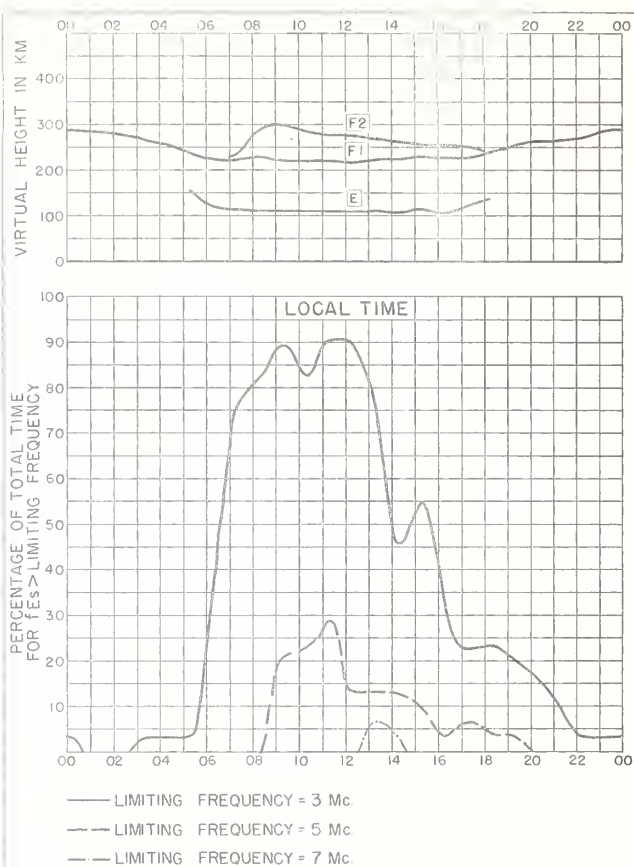


Fig. 98. FALKLAND IS.

OCTOBER 1954

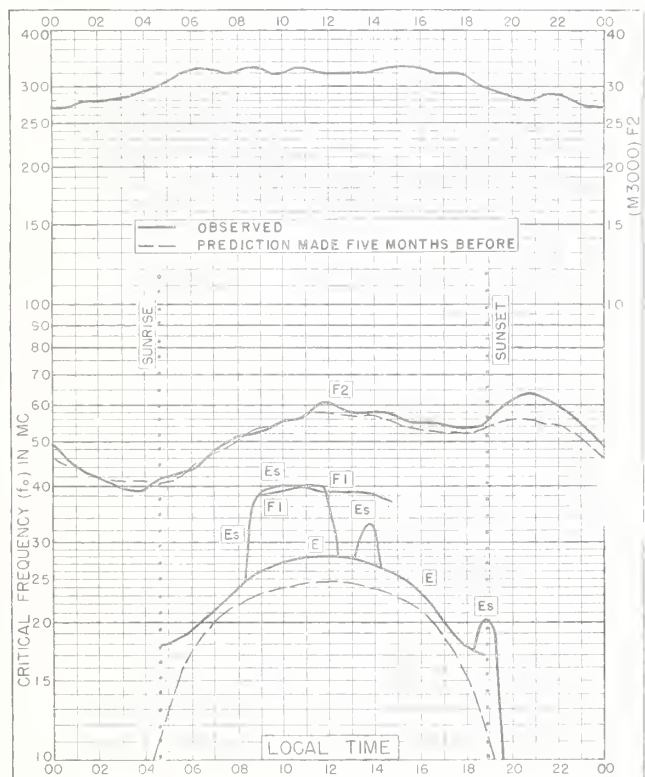


Fig. 99. PORT LOCKROY
64.8°S, 63.5°W

OCTOBER 1954

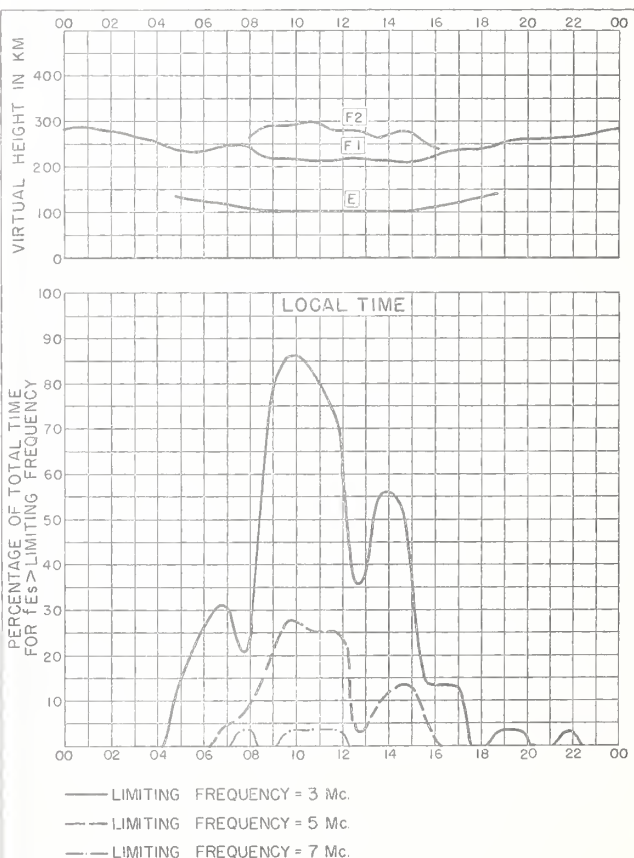


Fig.100. PORT LOCKROY

OCTOBER 1954

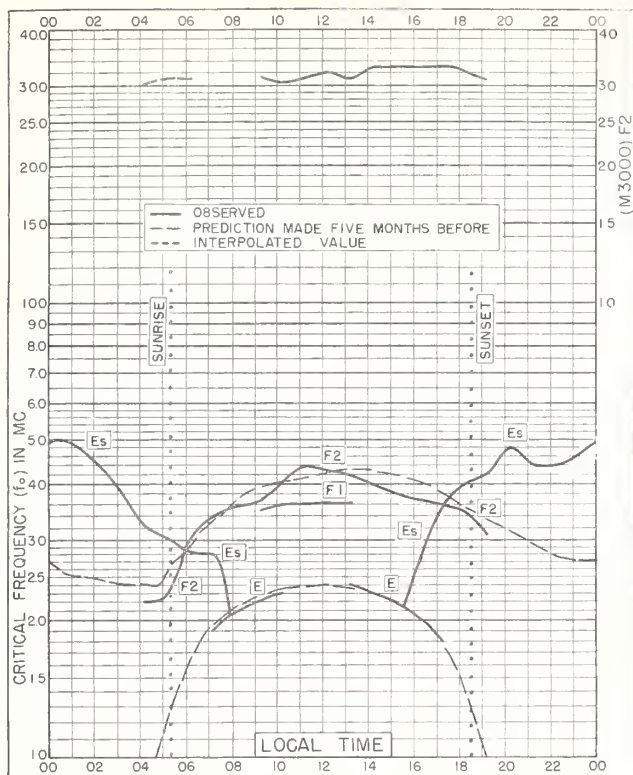


Fig. 101. TROMSØ, NORWAY
69.7°N, 19.0°E

SEPTEMBER 1954

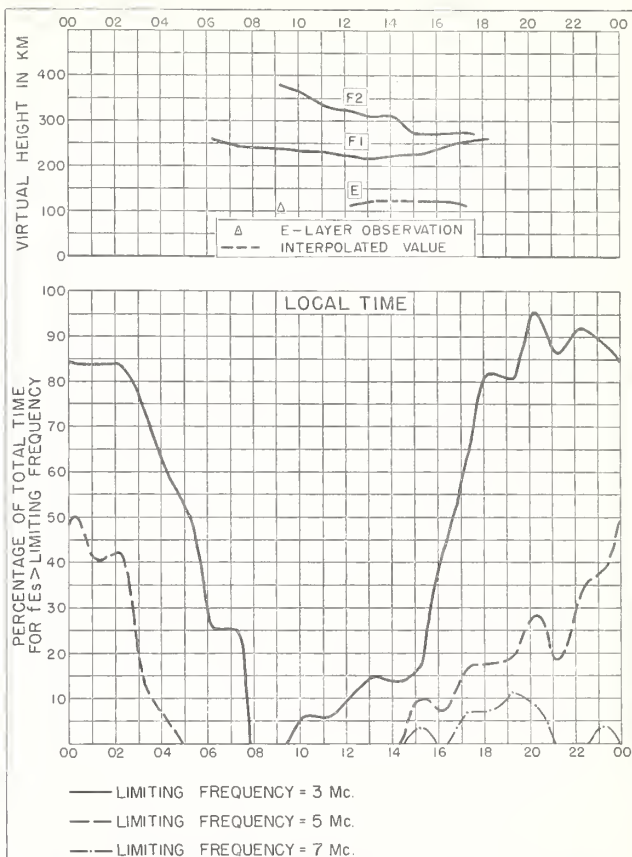


Fig. 102. TROMSØ, NORWAY

SEPTEMBER 1954

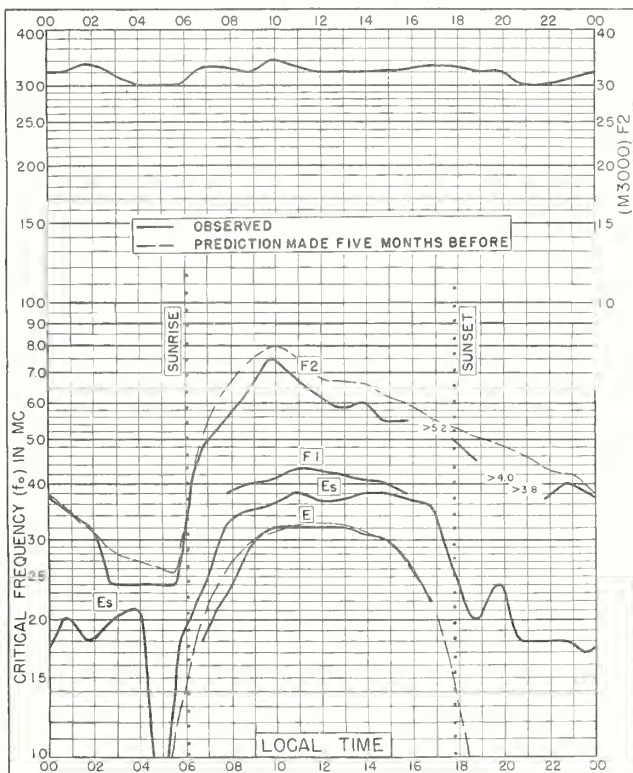


Fig. 103. TOWNSVILLE, AUSTRALIA
19.3°S, 146.7°E.

SEPTEMBER 1954

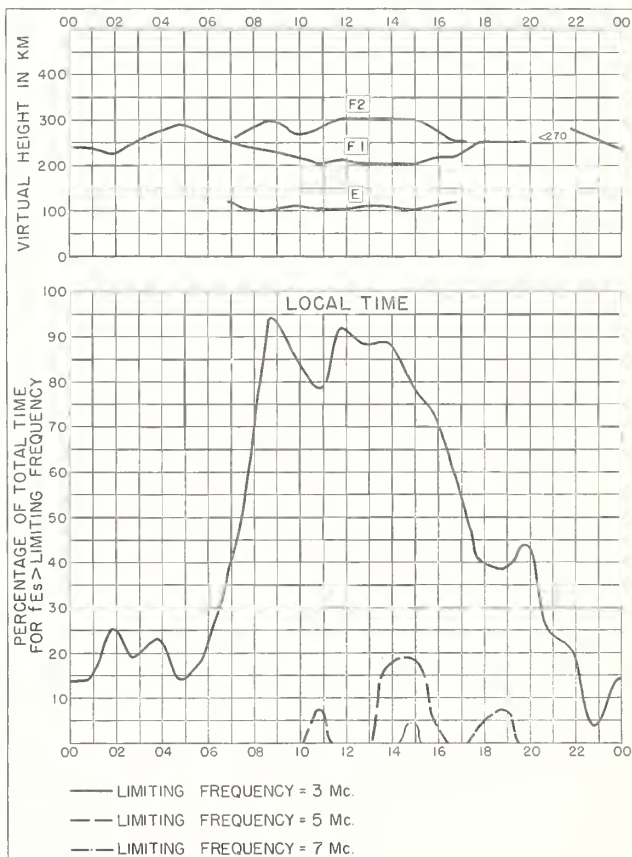


Fig. 104. TOWNSVILLE, AUSTRALIA

SEPTEMBER 1954

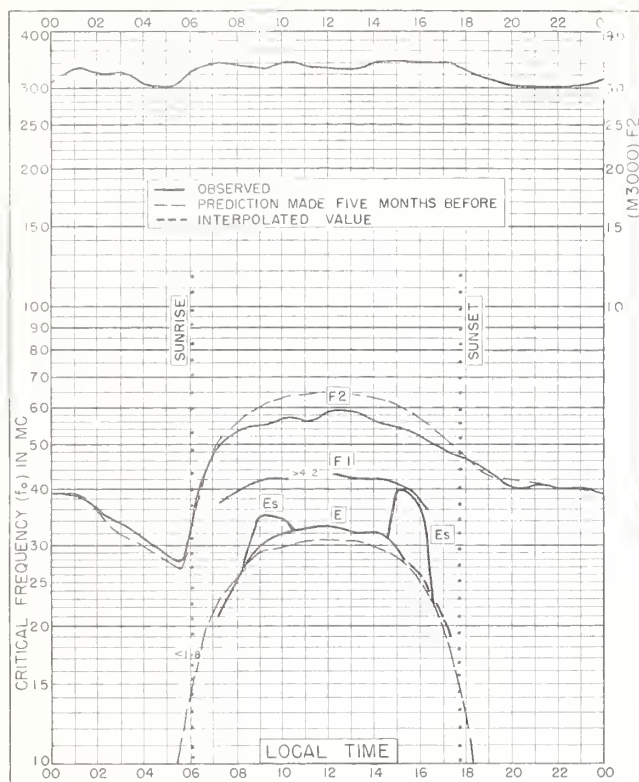


Fig. 105. BRISBANE, AUSTRALIA
27.5°S, 153.0°E SEPTEMBER 1954

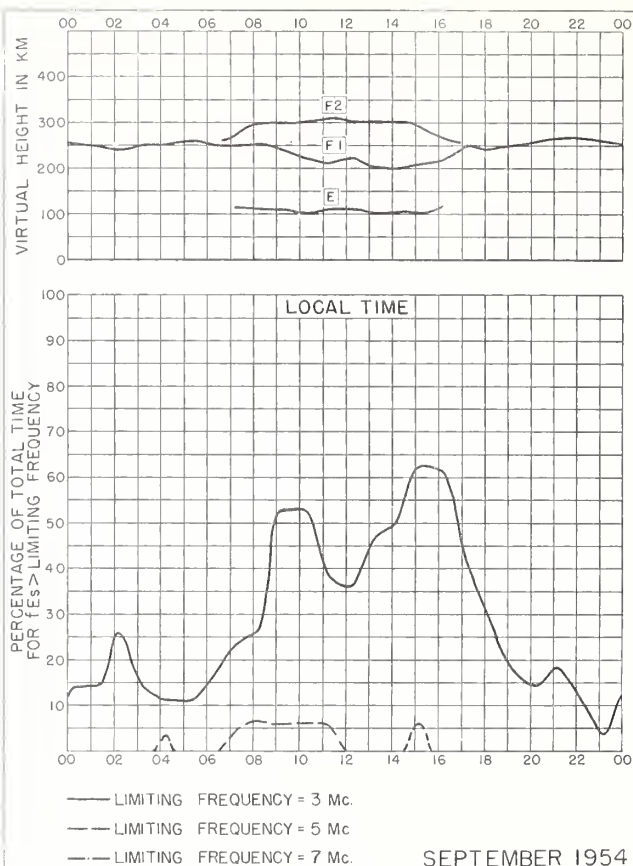


Fig. 106. BRISBANE, AUSTRALIA

NBS 490

U. S. GOVERNMENT PRINTING OFFICE 711877

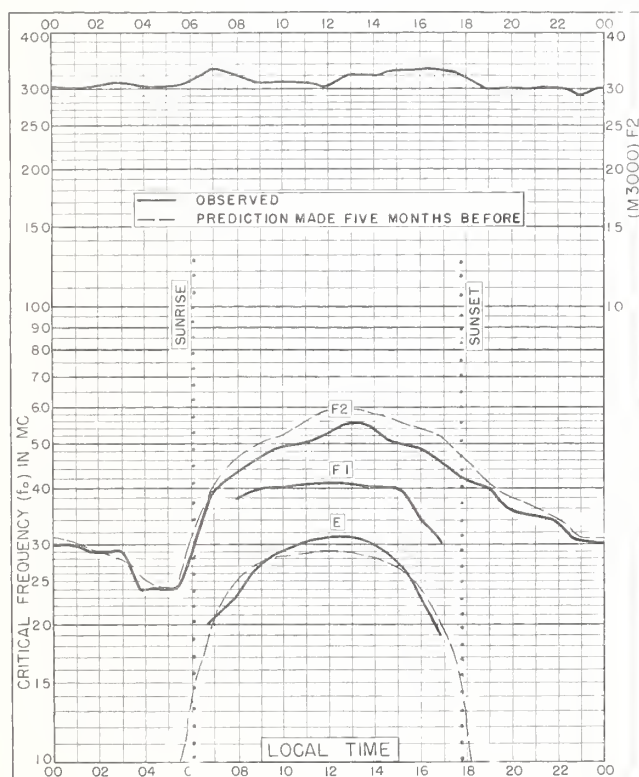


Fig. 107. CANBERRA, AUSTRALIA
35.3°S, 149.0°E SEPTEMBER 1954

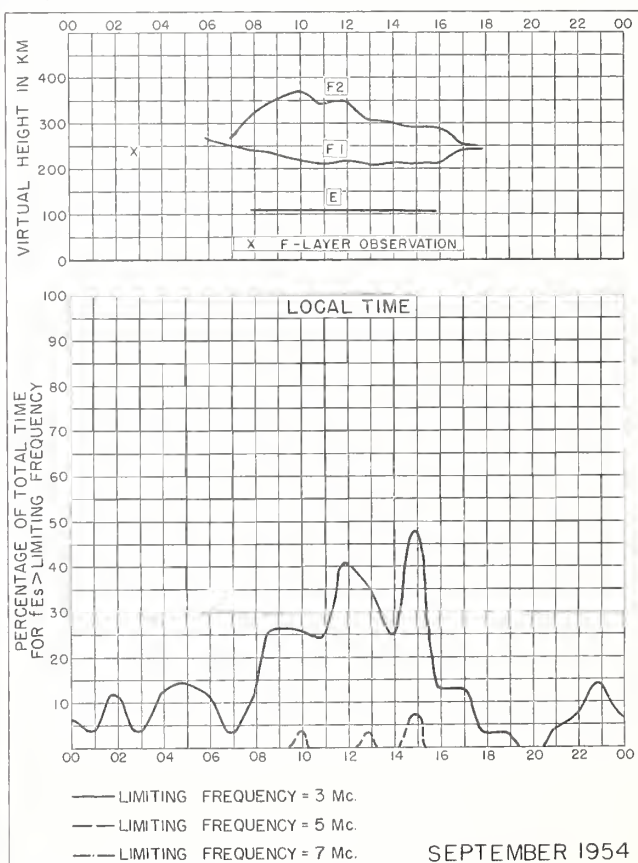


Fig. 108. CANBERRA, AUSTRALIA

SEPTEMBER 1954

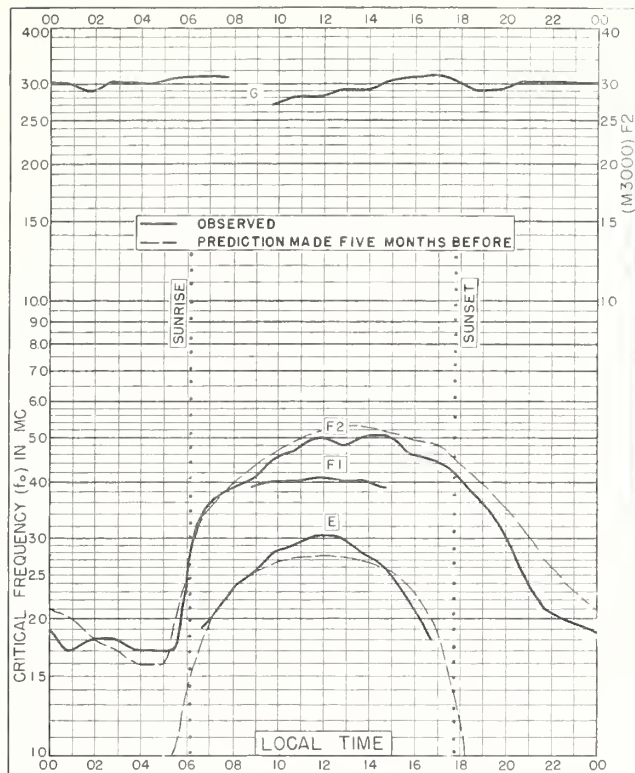


Fig. 109. HOBART, TASMANIA
42.9°S, 147.3°E SEPTEMBER 1954

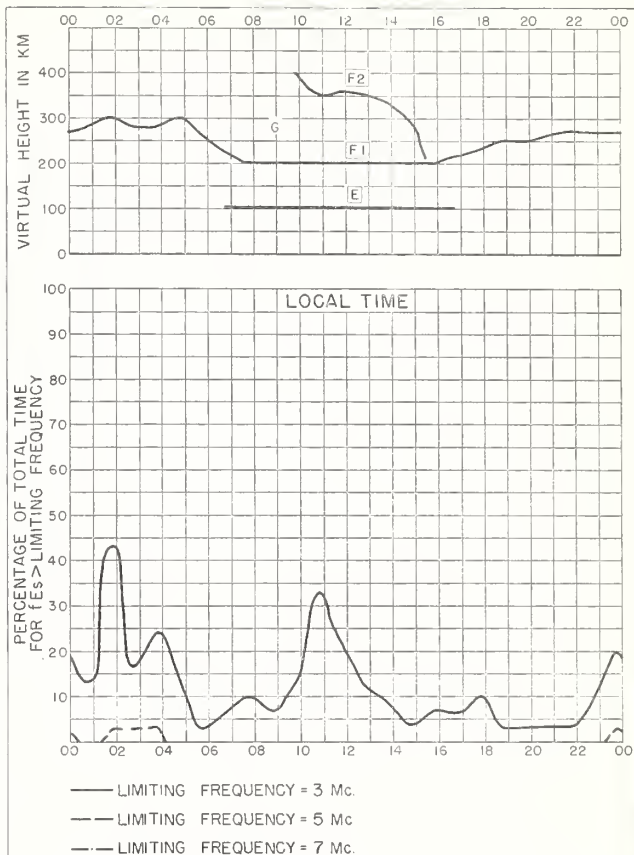


Fig. 110. HOBART, TASMANIA SEPTEMBER 1954

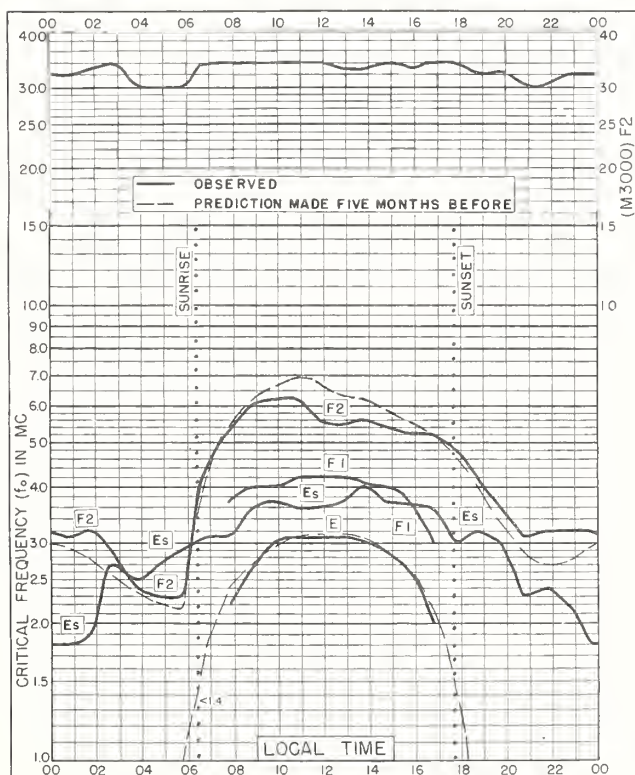


Fig. 111. TOWNSVILLE, AUSTRALIA
19.3°S, 146.7°E AUGUST 1954

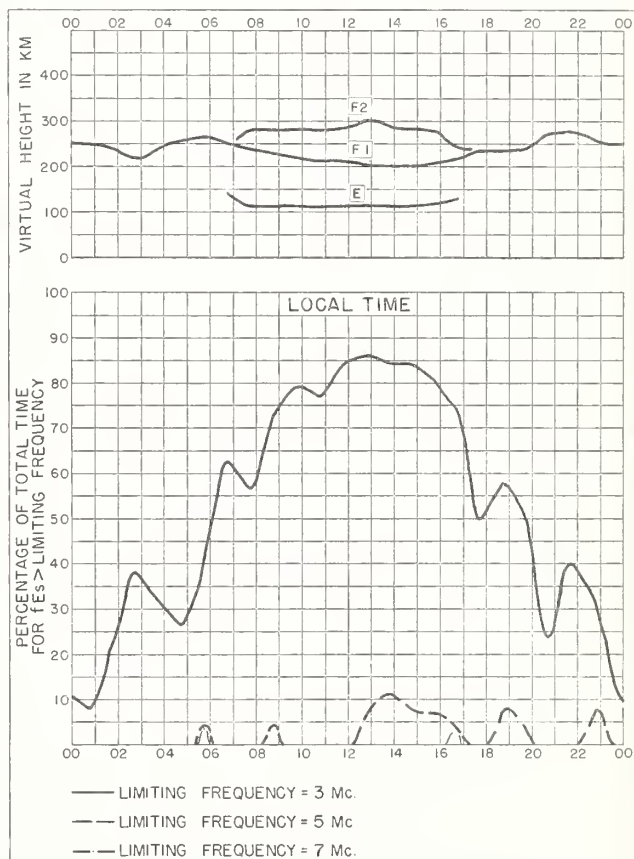


Fig. 112. TOWNSVILLE, AUSTRALIA AUGUST 1954

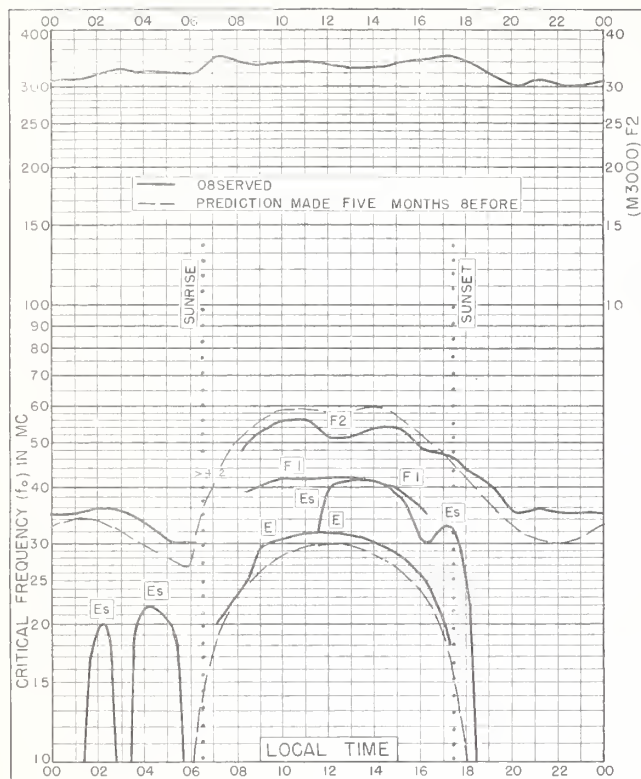


Fig. 113. BRISBANE, AUSTRALIA
27.5°S, 153.0°E

AUGUST 1954

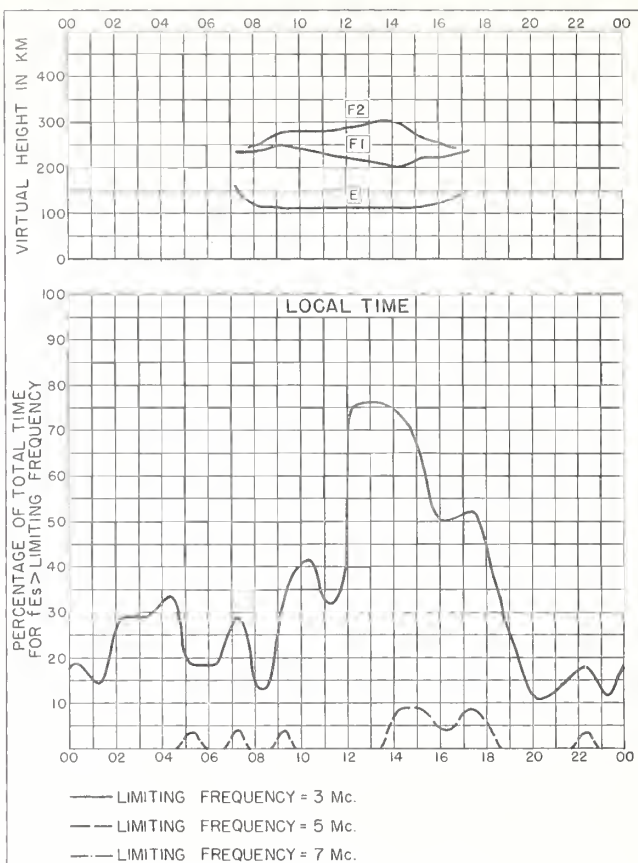


Fig. 114. BRISBANE, AUSTRALIA AUGUST 1954

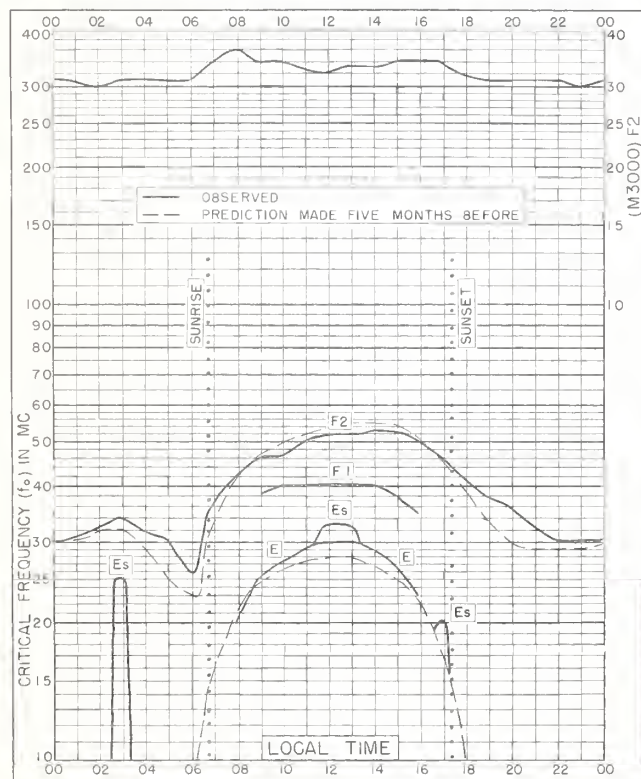


Fig. 115. CANBERRA, AUSTRALIA
35.3°S, 149.0°E.

AUGUST 1954

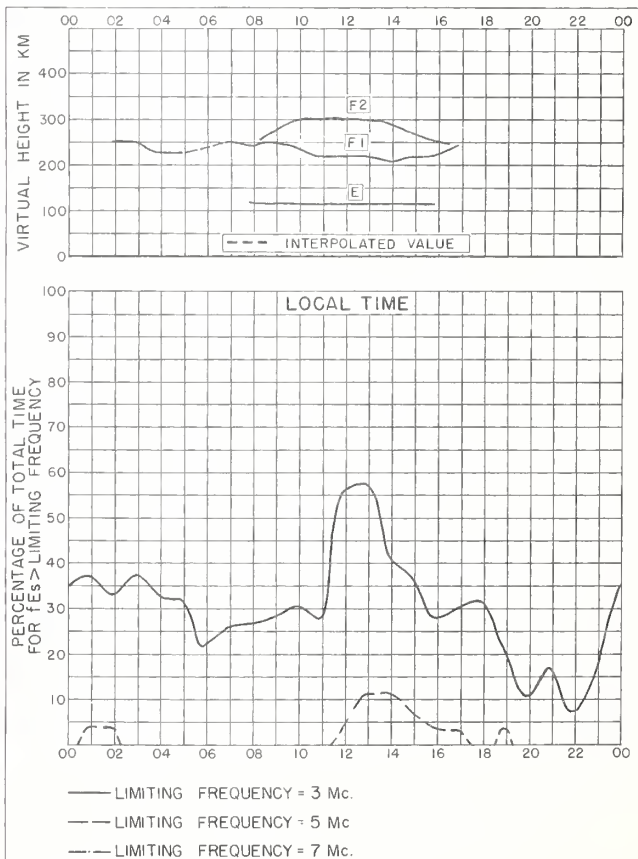


Fig. 116. CANBERRA, AUSTRALIA

AUGUST 1954

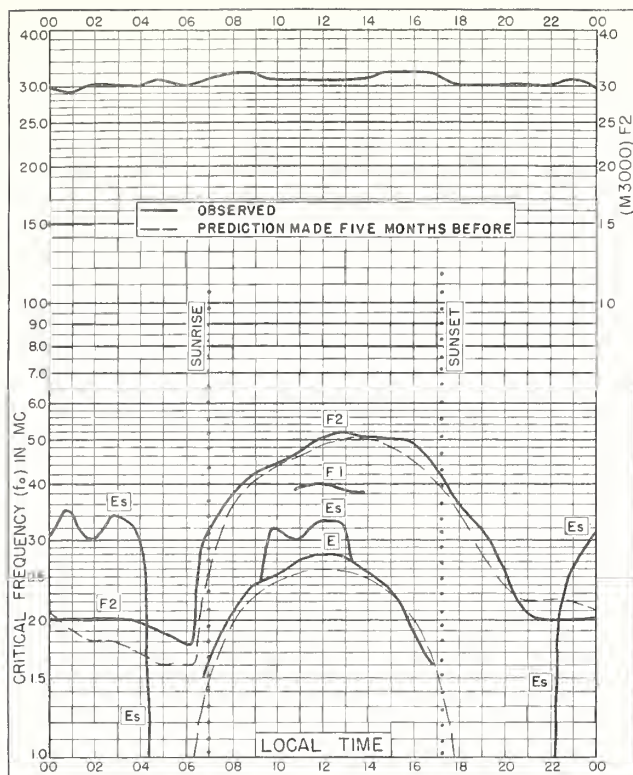


Fig. 117. HOBART, TASMANIA
42.9°S, 147.3°E

AUGUST 1954

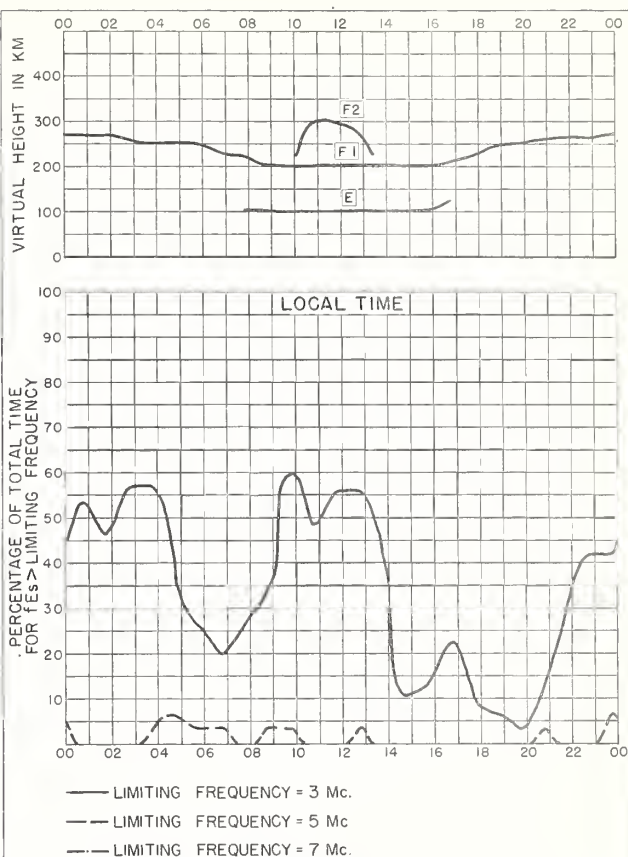


Fig. 118. HOBART, TASMANIA

AUGUST 1954

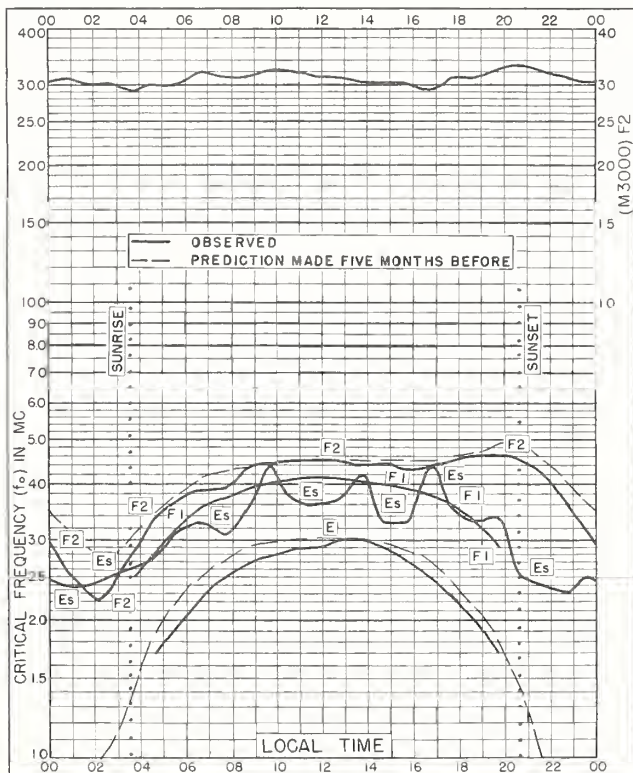


Fig. 119. INVERNESS, SCOTLAND
57.4°N, 42°W

JULY 1954

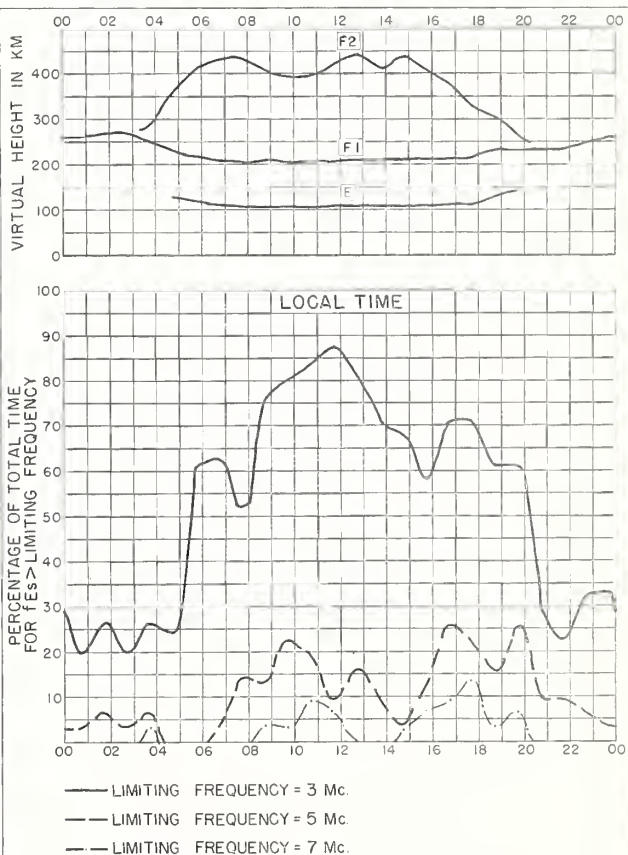


Fig. 120. INVERNESS, SCOTLAND

JULY 1954

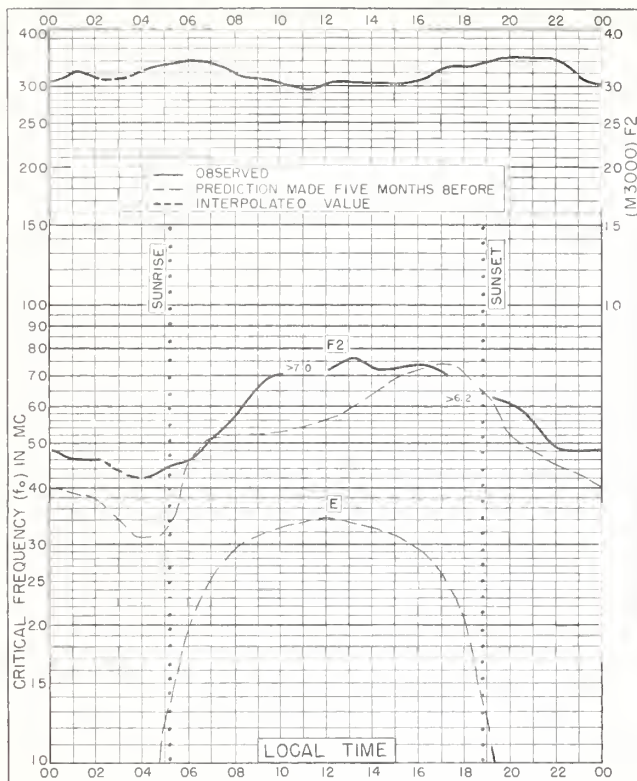


Fig. 121. DELHI, INDIA
28.6°N, 77.1°E

JULY 1954

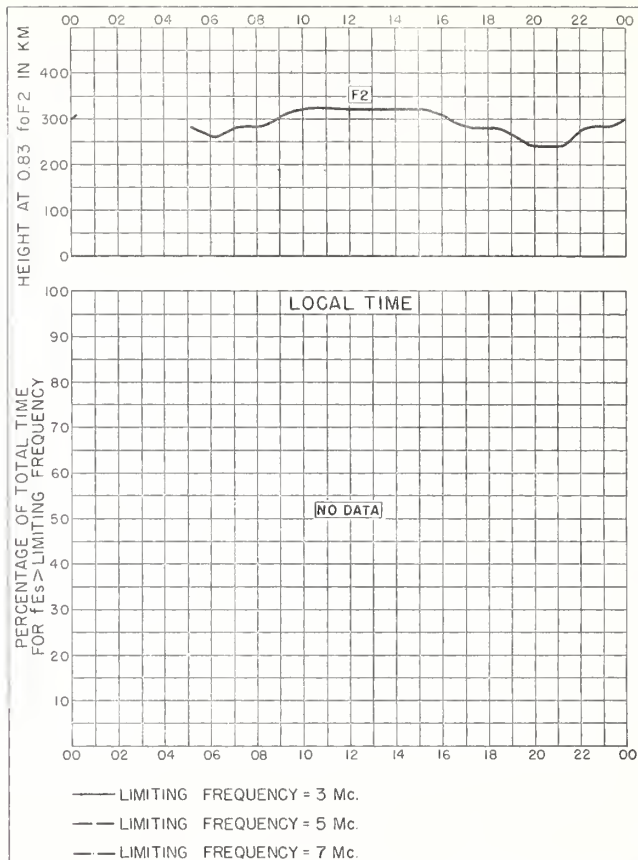


Fig. 122. DELHI, INDIA

JULY 1954

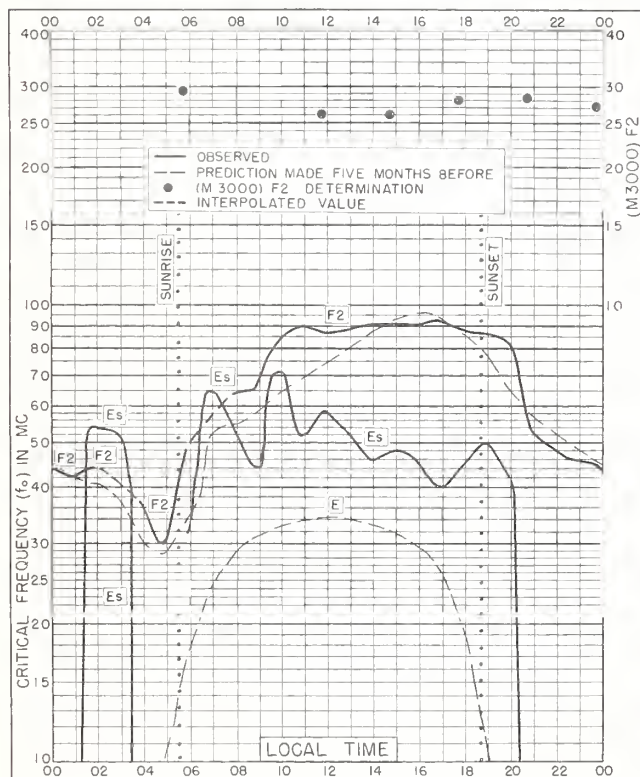


Fig. 123. CALCUTTA, INDIA
22.6°N, 88.4°E

JULY 1954

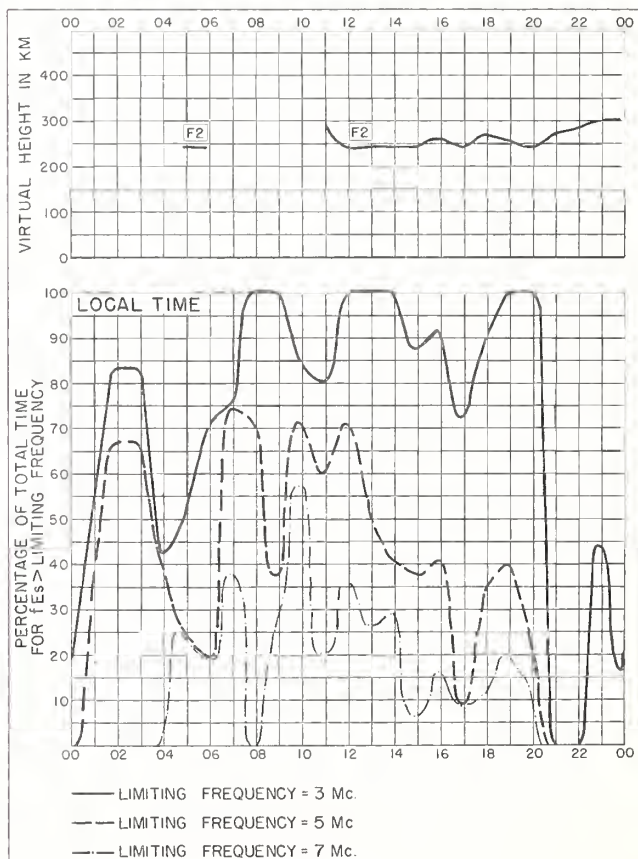


Fig. 124. CALCUTTA, INDIA

JULY 1954

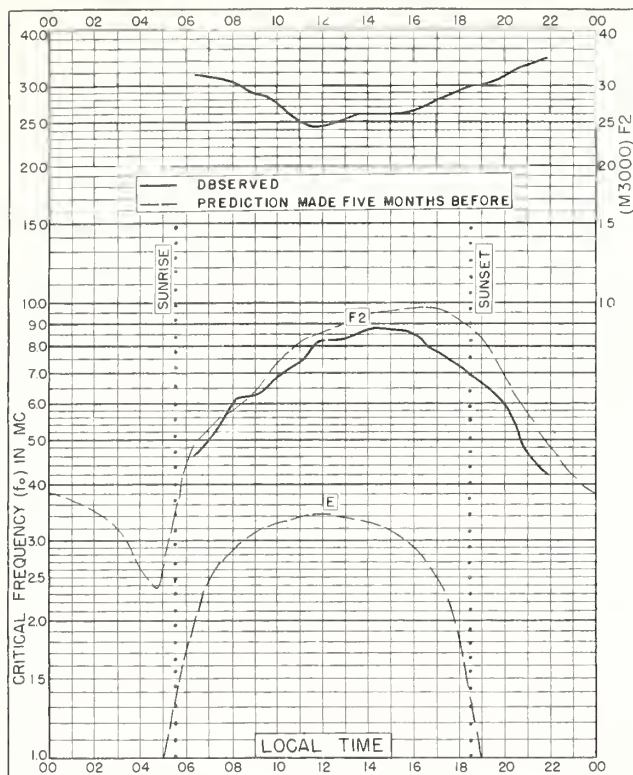


Fig. 125. BOMBAY, INDIA
19.0°N, 73.0°E

JULY 1954

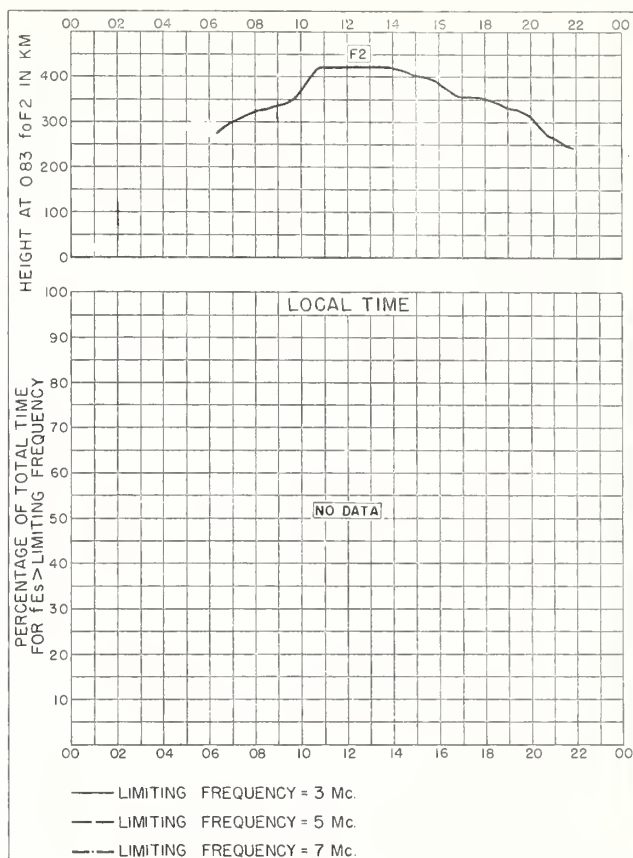


Fig. 126. BOMBAY, INDIA

JULY 1954

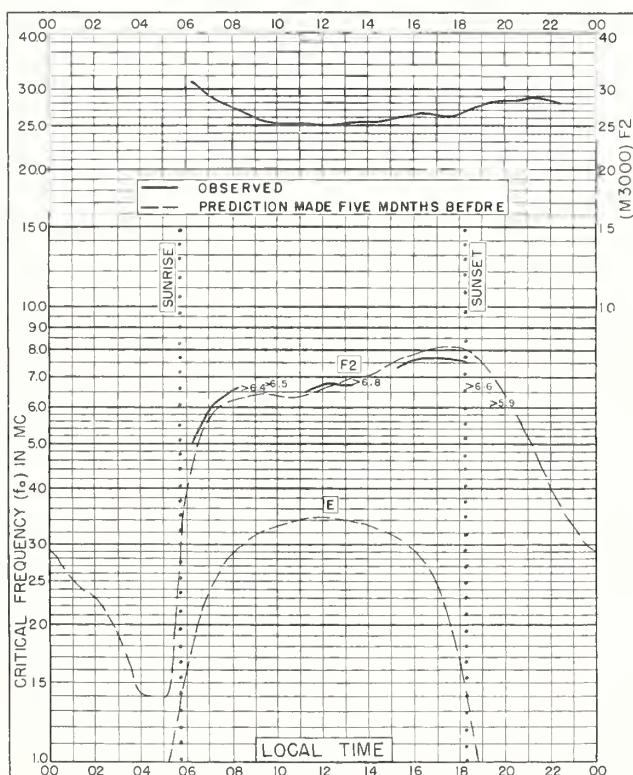


Fig. 127. MADRAS, INDIA
13.0°N, 80.2°E

JULY 1954

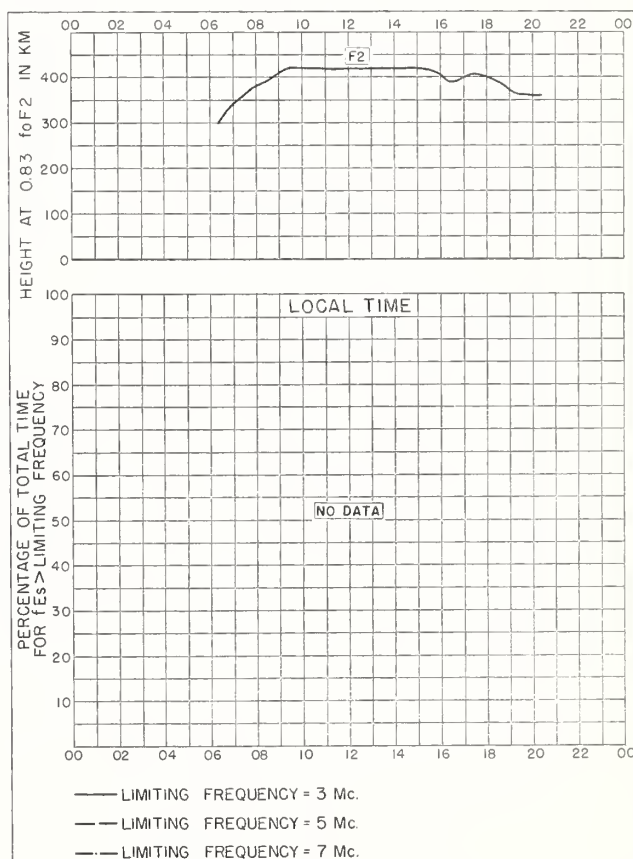


Fig. 128. MADRAS, INDIA

JULY 1954

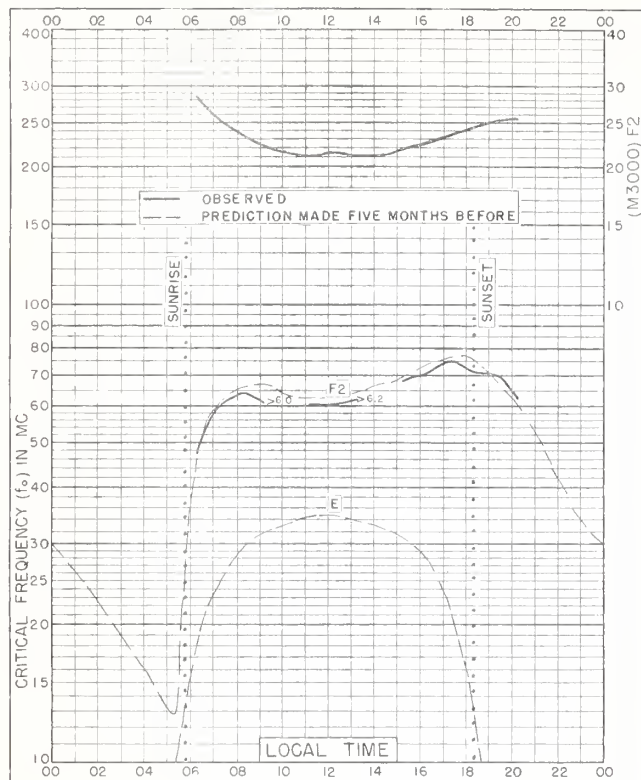


Fig. 129. TIRUCHY, INDIA
10.8°N, 78.8°E

JULY 1954

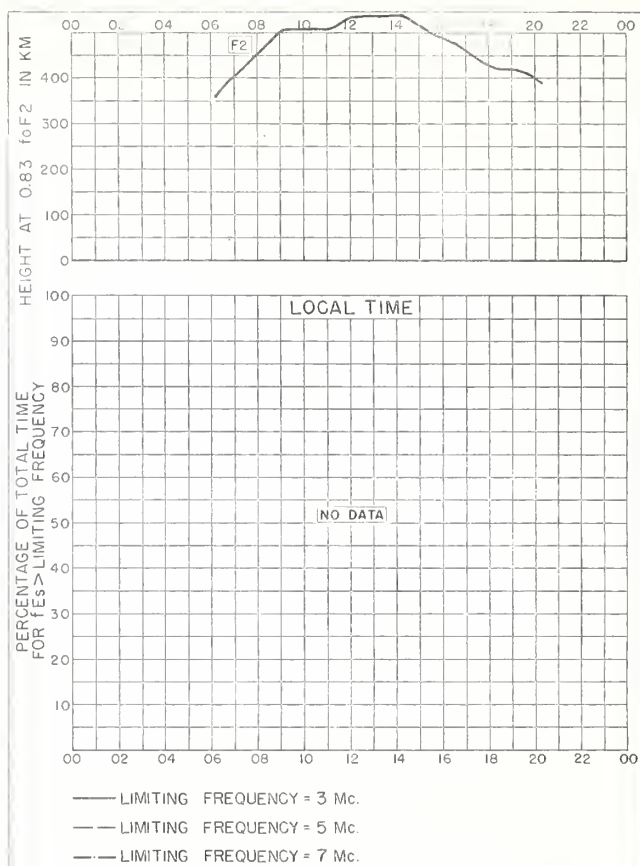


Fig. 130. TIRUCHY, INDIA

JULY 1954

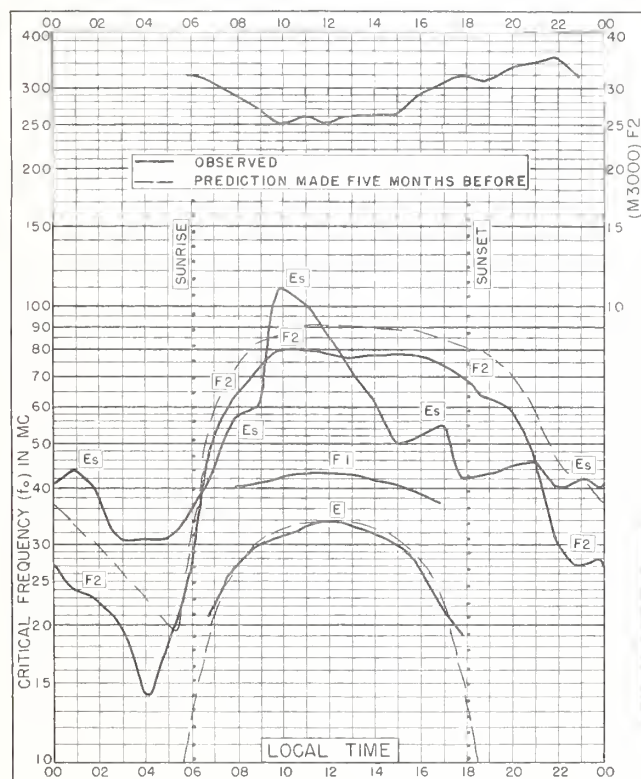


Fig. 131. SINGAPORE, BRITISH MALAYA
13°N, 103.8°E

JULY 1954

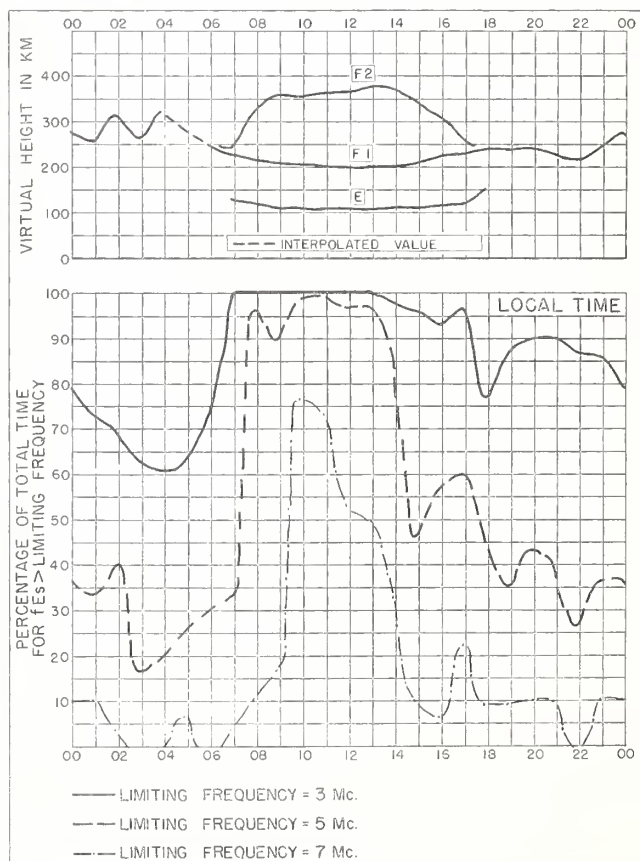


Fig. 132. SINGAPORE, BRITISH MALAYA JULY 1954

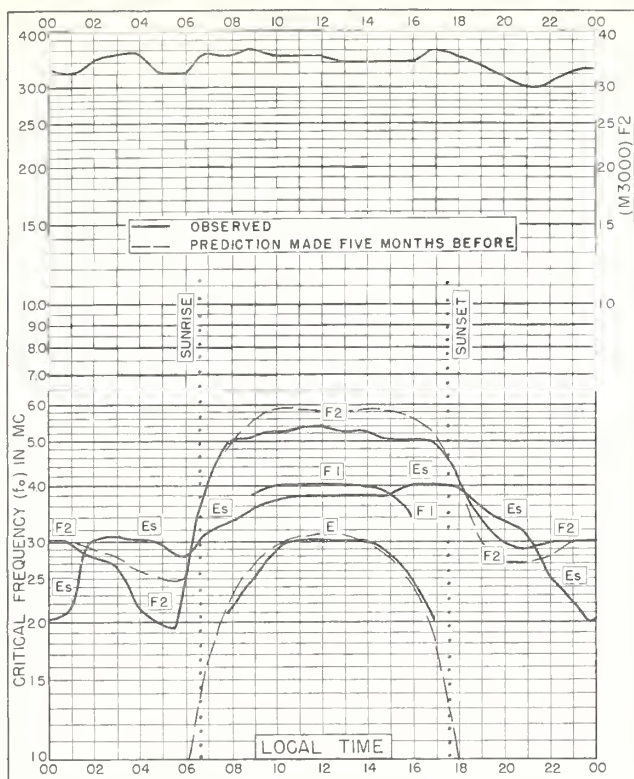


Fig. 133. TOWNSVILLE, AUSTRALIA
19.3°S, 146.7°E

JULY 1954

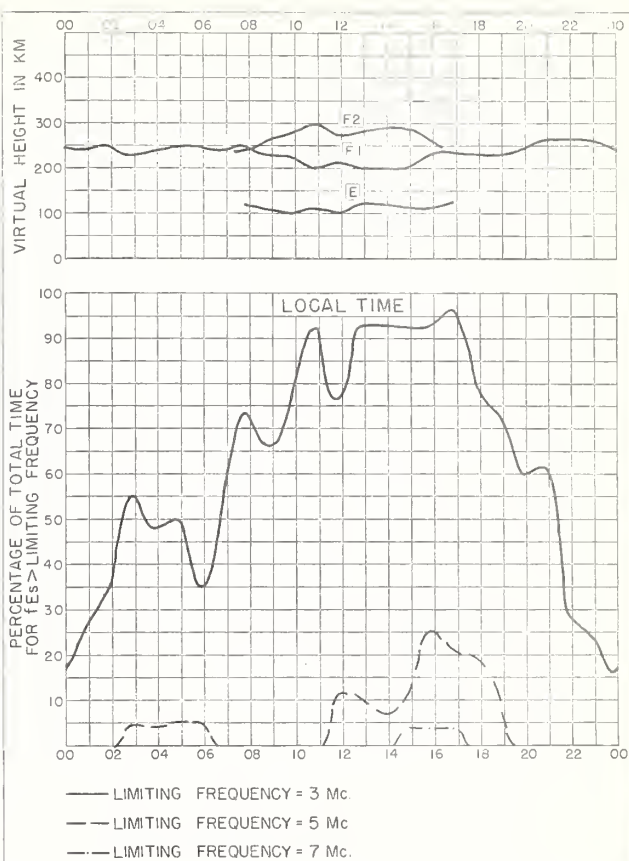


Fig. 134. TOWNSVILLE, AUSTRALIA

JULY 1954

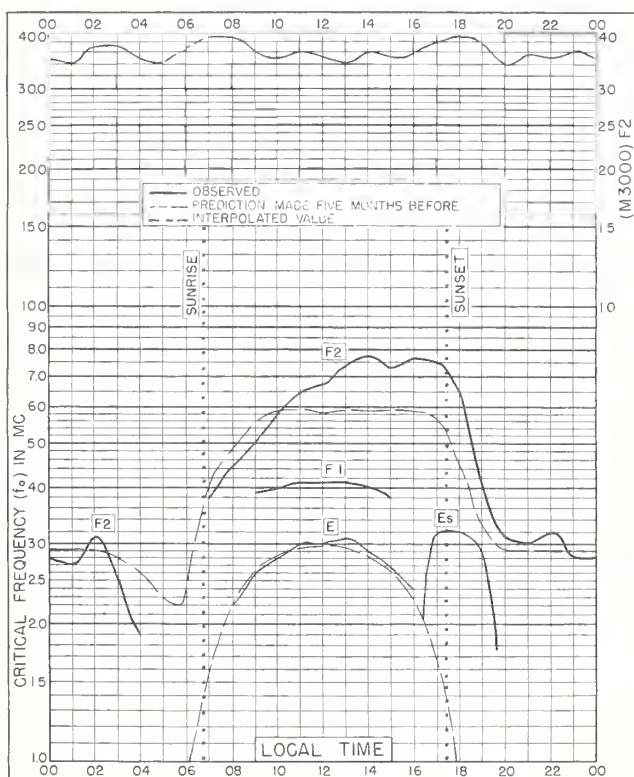


Fig. 135. SAO PAULO, BRAZIL
23.5°S, 46.5°W

JULY 1954

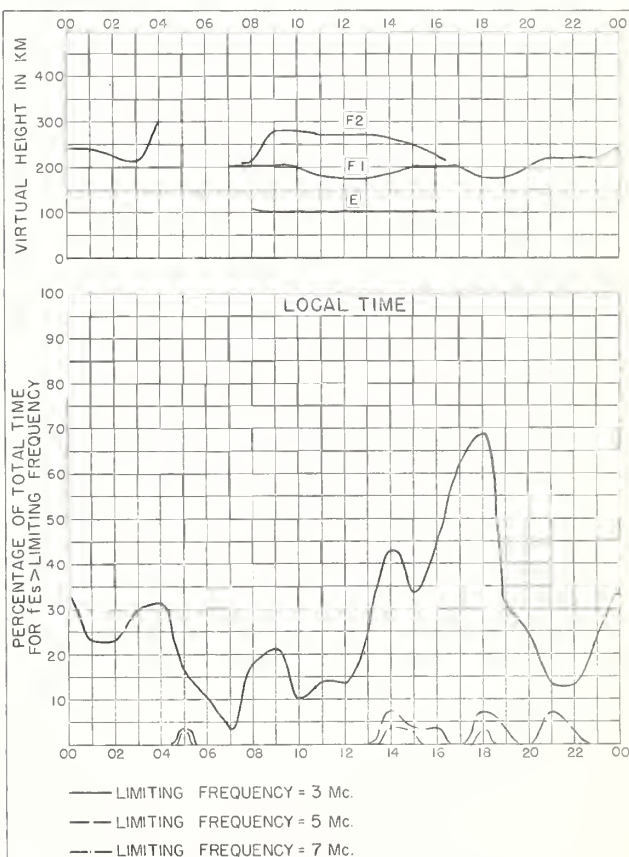


Fig. 136. SAO PAULO, BRAZIL

JULY 1954

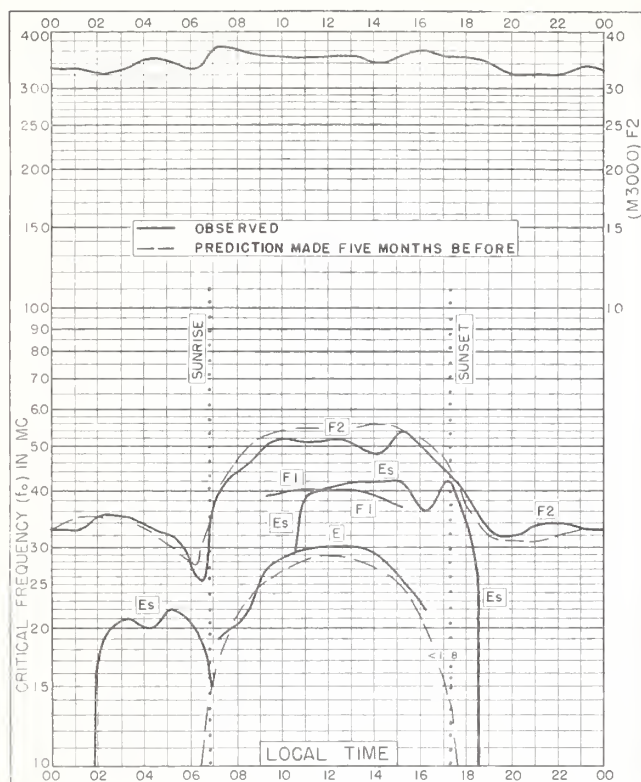


Fig 137. BRISBANE, AUSTRALIA
27.5°S, 153.0°E

JULY 1954

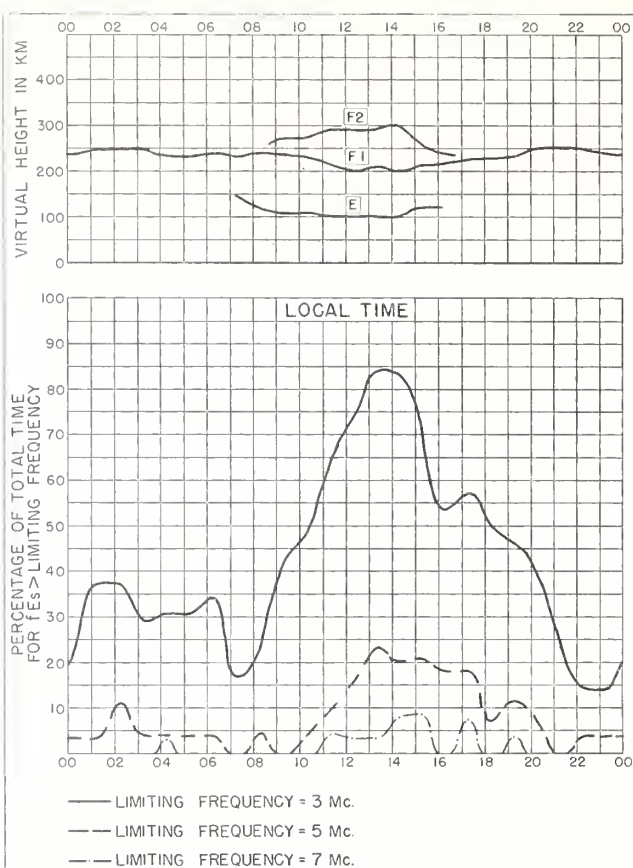


Fig 138. BRISBANE, AUSTRALIA

JULY 1954

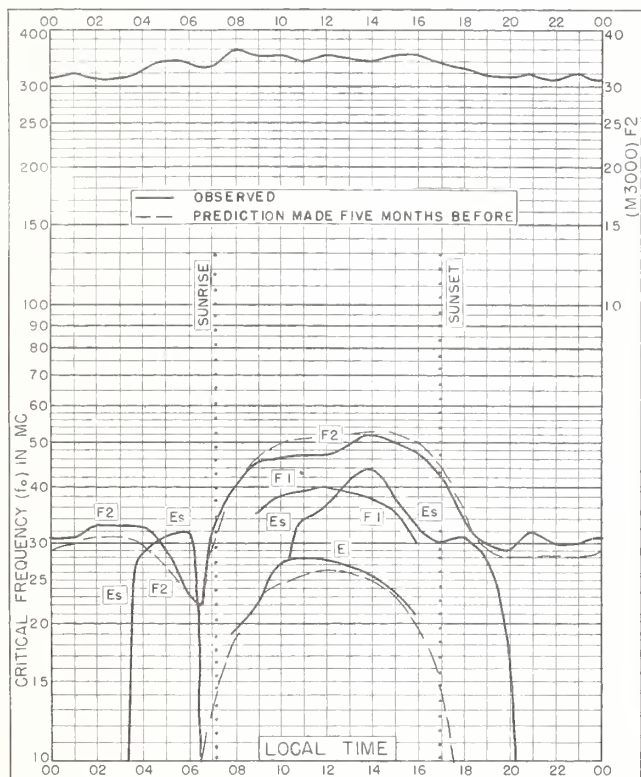


Fig 139. CANBERRA, AUSTRALIA
35.3°S, 149.0°E

JULY 1954

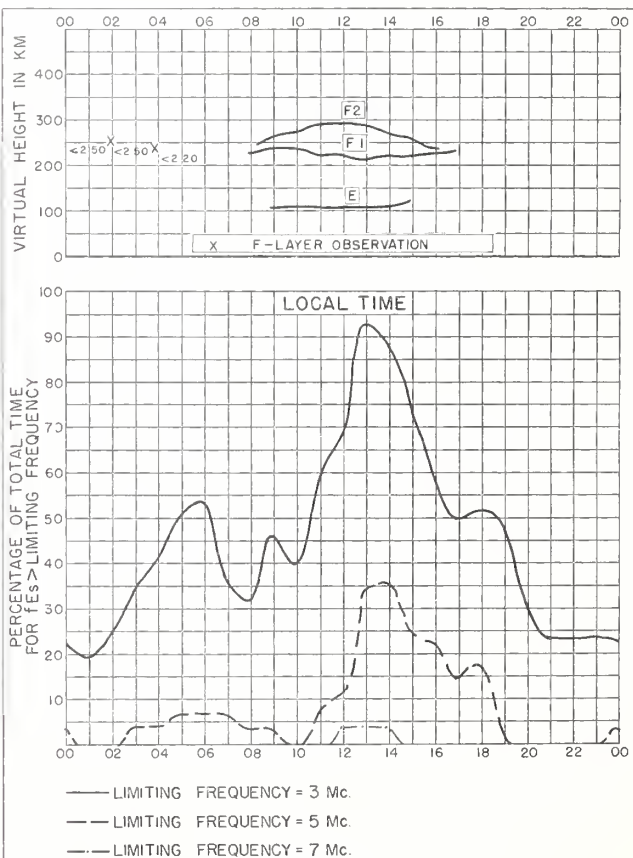


Fig 140. CANBERRA, AUSTRALIA

JULY 1954

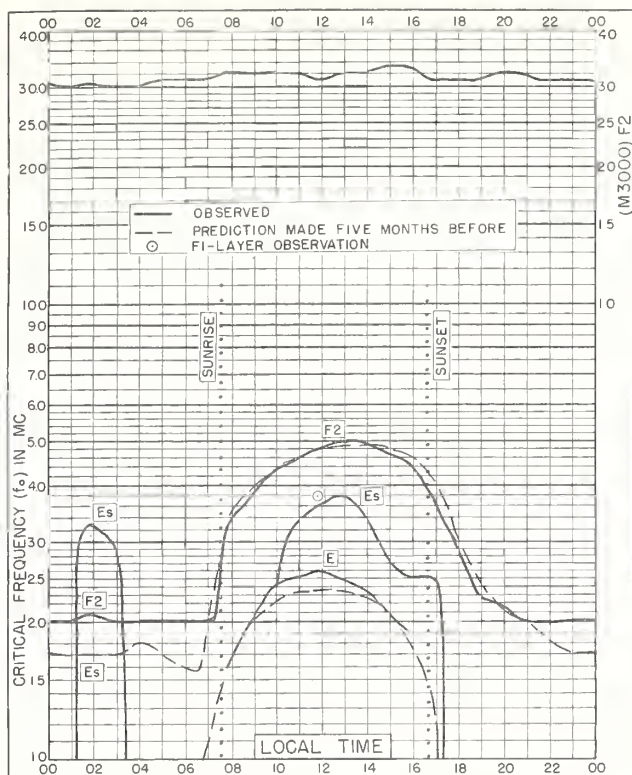


Fig. 141. HOBART, TASMANIA
42.9°S, 147.3°E

JULY 1954

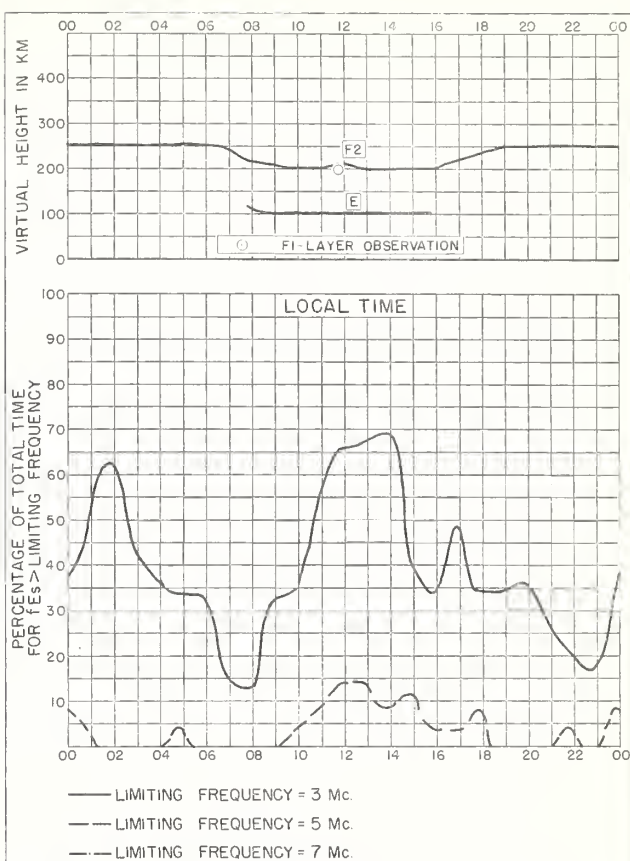


Fig. 142. HOBART, TASMANIA

JULY 1954

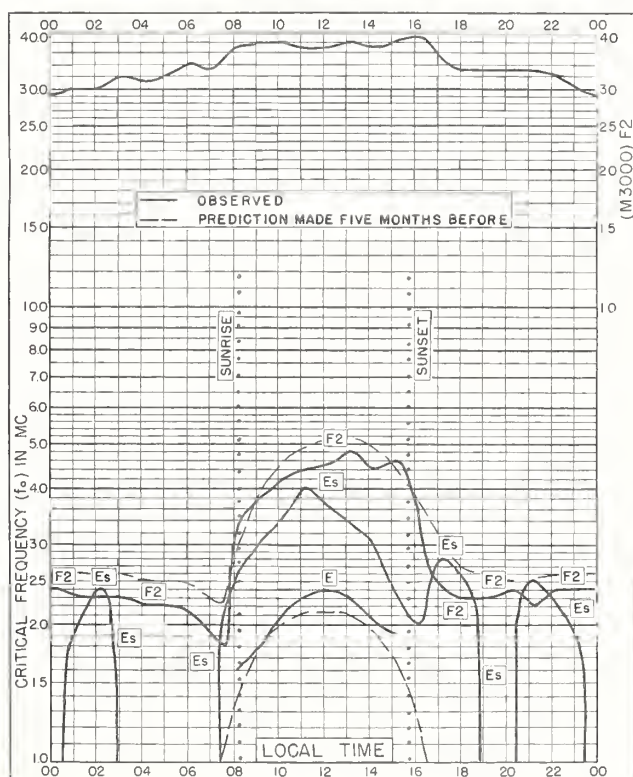


Fig. 143. FALKLAND IS
51.7°S, 57.8°W

JUNE 1954

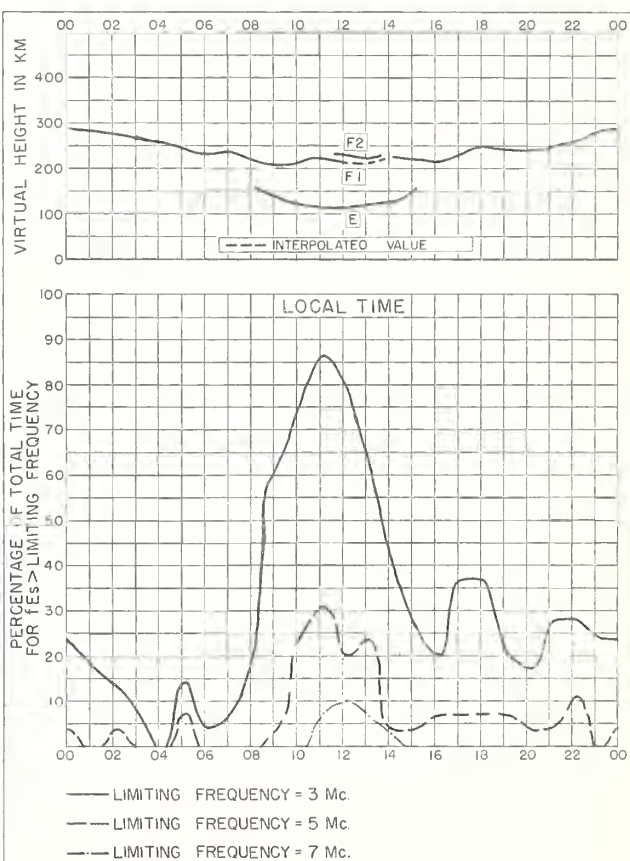


Fig. 144. FALKLAND IS

JUNE 1954

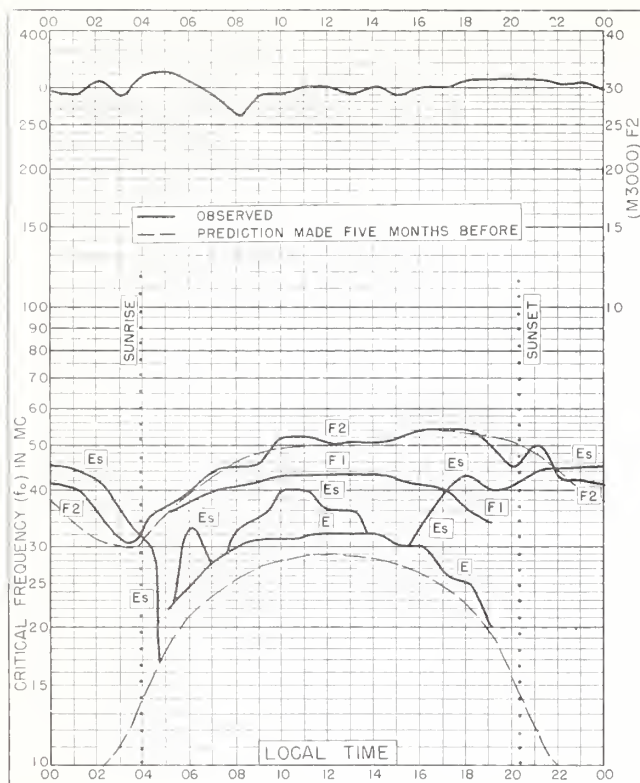


Fig. 145. MACQUARIE I.
54° 5'S, 159.0°E

JANUARY 1953

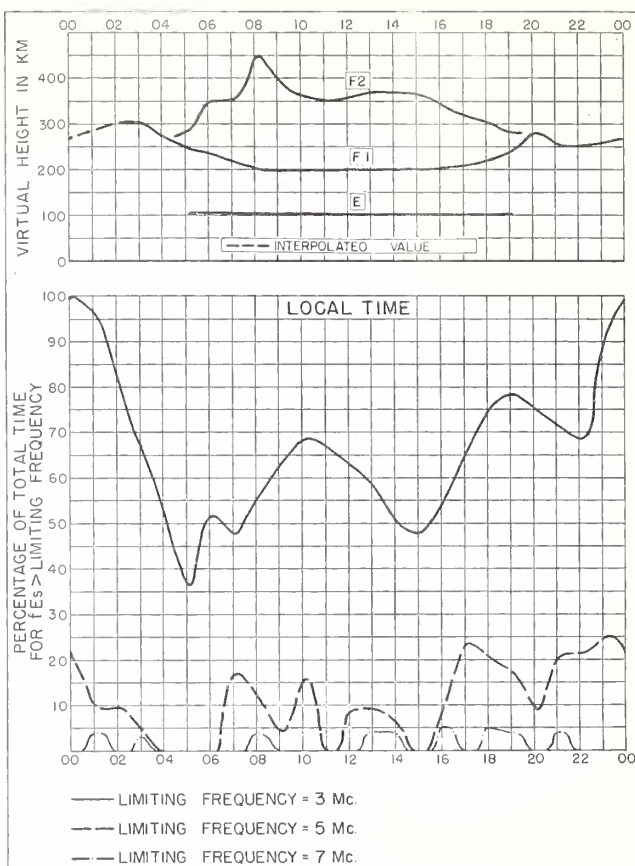


Fig. 146. MACQUARIE I.

JANUARY 1953

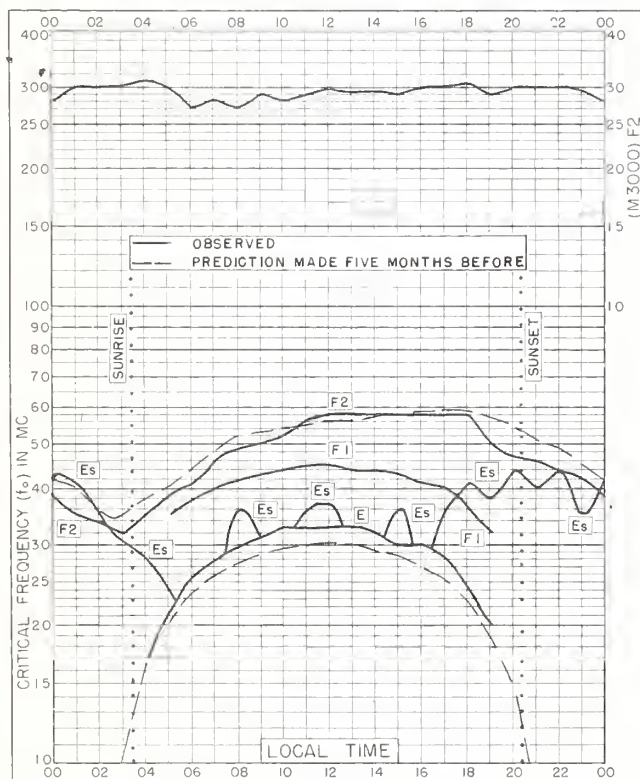


Fig. 147. MACQUARIE I.
54.5°S, 159.0°E

DECEMBER 1952

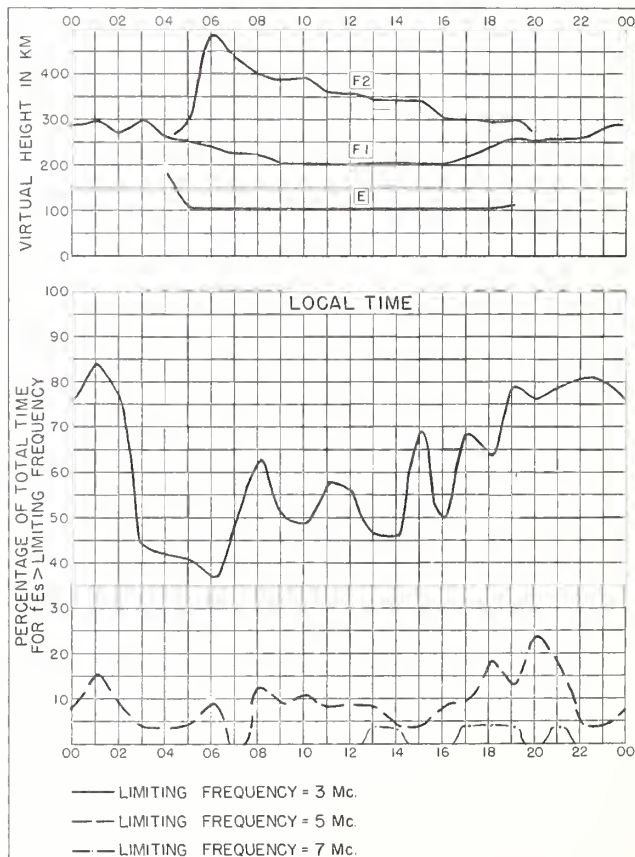


Fig. 148. MACQUARIE I.

DECEMBER 1952

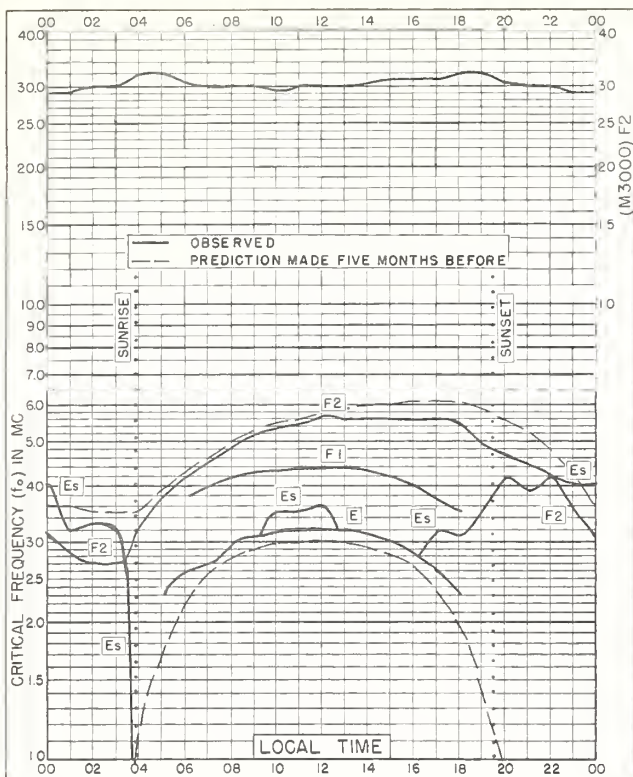


Fig. 149. MACQUARIE I.
54.5°S, 159.0°E NOVEMBER 1952

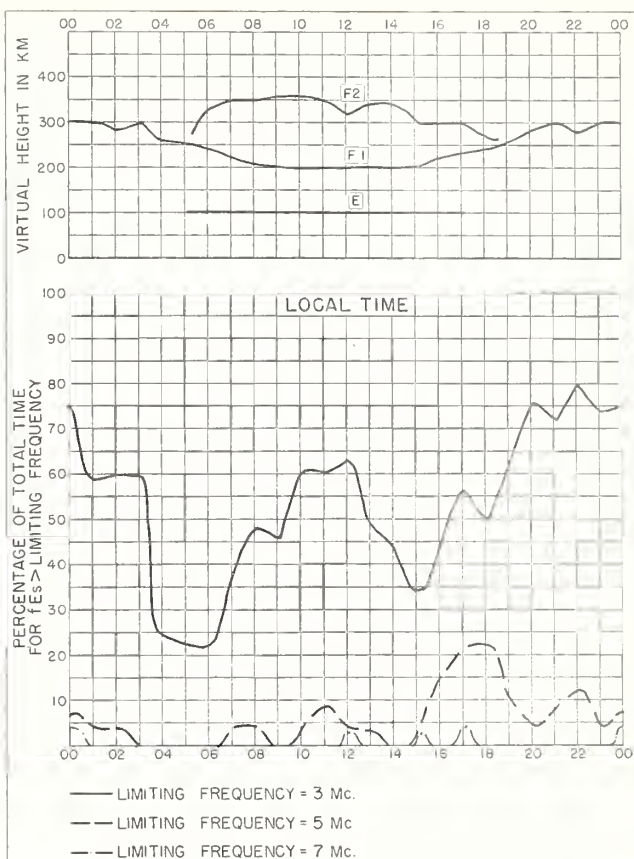


Fig. 150. MACQUARIE I. NOVEMBER 1952

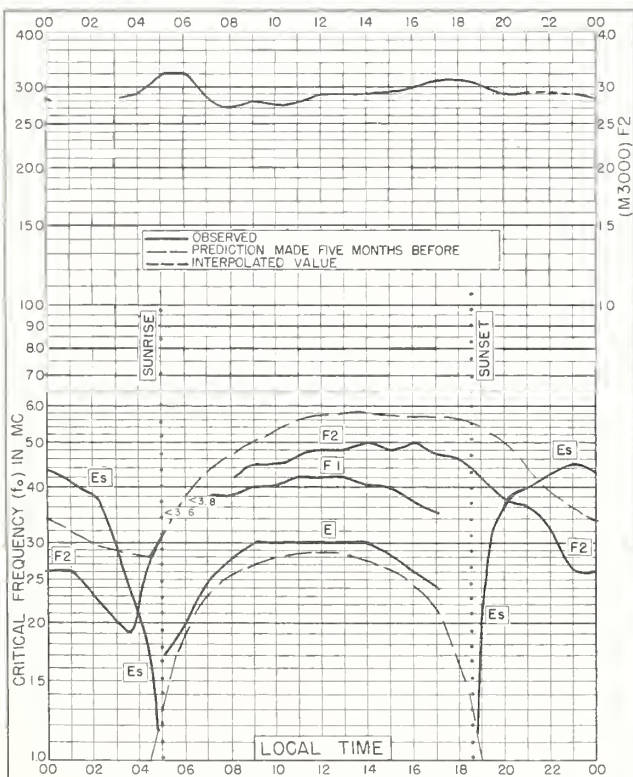


Fig. 151. MACQUARIE I.
54.5°S, 159.0°E OCTOBER 1952

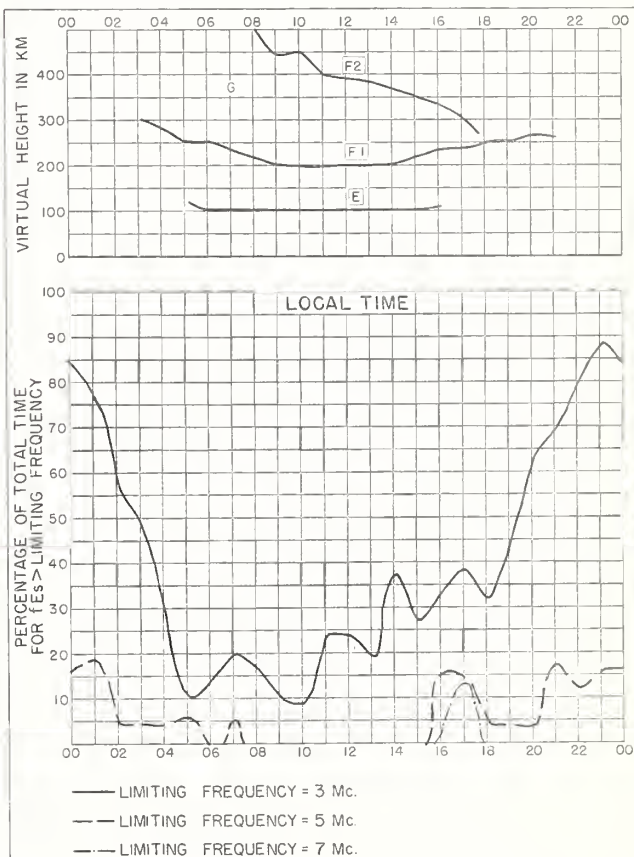


Fig. 152. MACQUARIE I. OCTOBER 1952

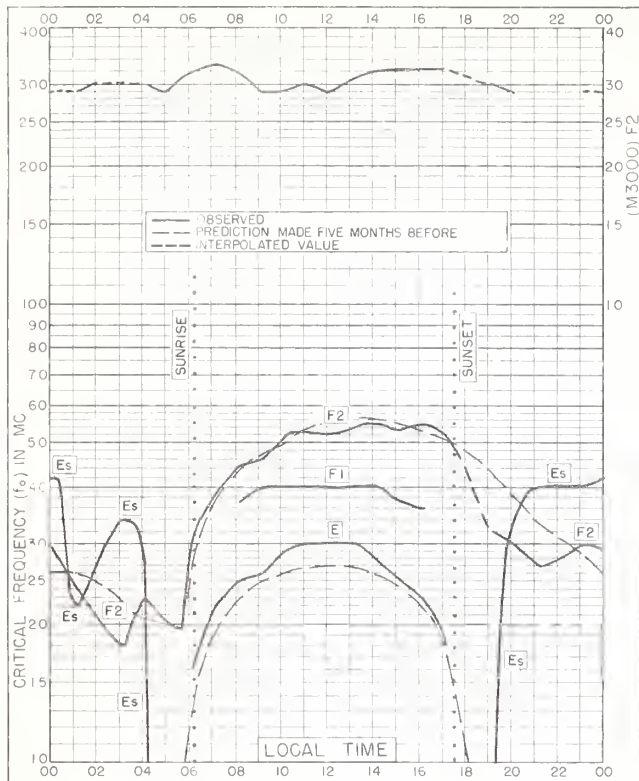


Fig. 153. MACQUARIE I.

54.5°S, 159.0°E

SEPTEMBER 1952

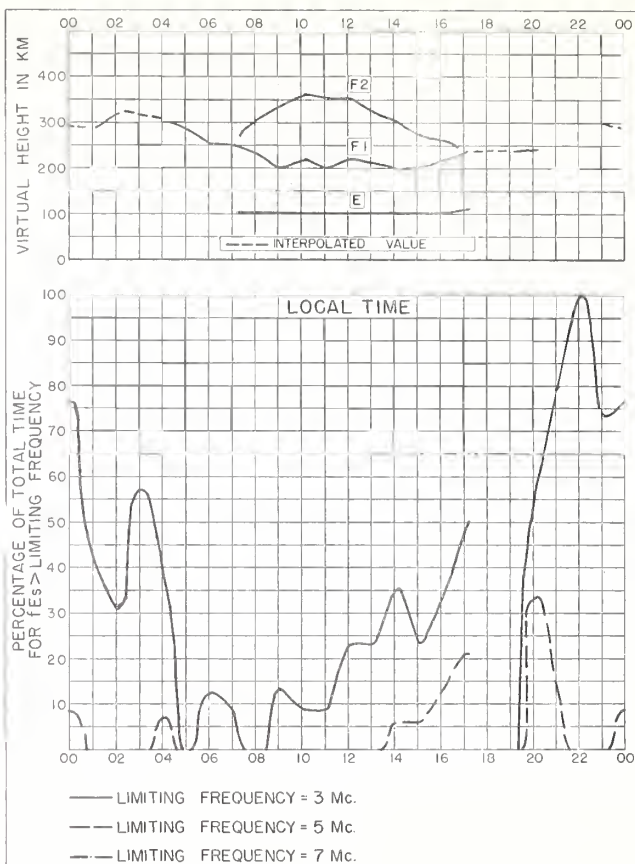


Fig. 154. MACQUARIE I.

SEPTEMBER 1952

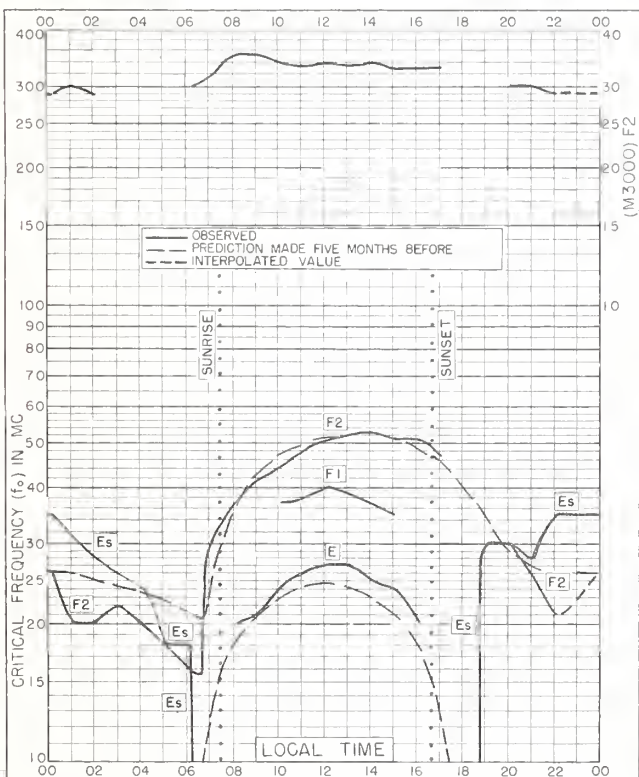


Fig. 155. MACQUARIE I.

54.5°S, 159.0°E

AUGUST 1952

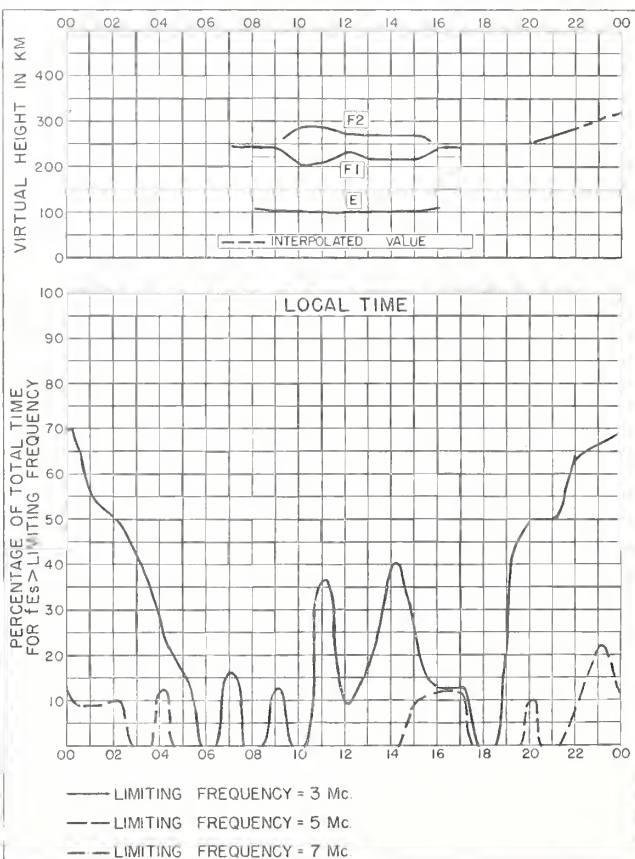


Fig. 156. MACQUARIE I.

AUGUST 1952

Index of Tables and Graphs of Ionospheric Data

in CRPL-F128

| | <u>Table page</u> | <u>Figure page</u> |
|------------------------------|-------------------|--------------------|
| Adak, Alaska | | |
| February 1955 | 13 | 54 |
| Akita, Japan | | |
| December 1954 | 18 | 68 |
| Anchorage, Alaska | | |
| January 1955 | 16 | 63 |
| Baguio, P. I. | | |
| December 1954 | 19 | 70 |
| Baker Lake, Canada | | |
| January 1955 | 16 | 62 |
| Bombay, India | | |
| July 1954 | 23 | 83 |
| Brisbane, Australia | | |
| September 1954 | 21 | 78 |
| August 1954 | 22 | 80 |
| July 1954 | 24 | 86 |
| Calcutta, India | | |
| July 1954 | 23 | 82 |
| Canberra, Australia | | |
| September 1954 | 21 | 78 |
| August 1954 | 22 | 80 |
| July 1954 | 24 | 86 |
| Capetown, Union of S. Africa | | |
| December 1954 | 19 | 71 |
| Christchurch, New Zealand | | |
| November 1954 | 20 | 74 |
| Churchill, Canada | | |
| January 1955 | 16 | 63 |
| De Bilt, Holland | | |
| January 1955 | 17 | 64 |
| Delhi, India | | |
| July 1954 | 23 | 82 |
| Fairbanks, Alaska | | |
| January 1955 | 16 | 61 |
| Falkland Is. | | |
| October 1954 | 21 | 76 |
| June 1954 | 24 | 87 |
| Formosa, China | | |
| February 1955 | 14 | 57 |
| Graz, Austria | | |
| February 1955 | 13 | 54 |
| Guam I. | | |
| February 1955 | 15 | 58 |

Index (CRPL-F128, continued)

| | <u>Table page</u> | <u>Figure page</u> |
|----------------------------------|-------------------|--------------------|
| Hobart, Tasmania | | |
| September 1954 | 22 | 79 |
| August 1954 | 22 | 81 |
| July 1954 | 24 | 87 |
| Huancayo, Peru | | |
| January 1955 | 18 | 67 |
| Inverness, Scotland | | |
| November 1954 | 19 | 72 |
| July 1954 | 22 | 81 |
| Johannesburg, Union of S. Africa | | |
| December 1954 | 19 | 70 |
| Kiruna, Sweden | | |
| January 1955 | 15 | 60 |
| Leopoldville, Belgian Congo | | |
| February 1955 | 15 | 59 |
| Lindau/Harz, Germany | | |
| January 1955 | 17 | 64 |
| Lulea, Sweden | | |
| January 1955 | 16 | 61 |
| Macquarie I. | | |
| January 1953 | 25 | 88 |
| December 1952 | 25 | 88 |
| November 1952 | 25 | 89 |
| October 1952 | 25 | 89 |
| September 1952 | 25 | 90 |
| August 1952 | 25 | 90 |
| Madras, India | | |
| July 1954 | 23 | 83 |
| Maui, Hawaii | | |
| February 1955 | 14 | 57 |
| Nairobi, Kenya | | |
| November 1954 | 20 | 73 |
| October 1954 | 20 | 75 |
| Narsarssuak, Greenland | | |
| February 1955 | 13 | 52 |
| Okinawa I. | | |
| February 1955 | 14 | 56 |
| January 1955 | 17 | 66 |
| Oslo, Norway | | |
| February 1955 | 13 | 53 |
| Ottawa, Canada | | |
| January 1955 | 17 | 66 |
| Panama Canal Zone | | |
| February 1955 | 15 | 59 |
| Port Lockroy | | |
| October 1954 | 21 | 76 |

Index (CRPL-F128, concluded)

| | <u>Table page</u> | <u>Figure page</u> |
|----------------------------|-------------------|--------------------|
| Puerto Rico, W. I. | | |
| February 1955 | 15 | 58 |
| Rarotonga I. | | |
| November 1954 | 20 | 74 |
| Resolute Bay, Canada | | |
| January 1955 | 15 | 60 |
| Reykjavik, Iceland | | |
| January 1955 | 16 | 62 |
| December 1954 | 18 | 67 |
| San Francisco, California | | |
| February 1955 | 14 | 55 |
| Sao Paulo, Brazil | | |
| July 1954 | 24 | 85 |
| Schwarzenburg, Switzerland | | |
| February 1955 | 14 | 55 |
| January 1955 | 17 | 65 |
| Singapore, British Malaya | | |
| November 1954 | 20 | 73 |
| July 1954 | 23 | 84 |
| Slough, England | | |
| November 1954 | 19 | 72 |
| Tiruchy, India | | |
| July 1954 | 23 | 84 |
| Tokyo, Japan | | |
| December 1954 | 18 | 69 |
| Townsville, Australia | | |
| September 1954 | 21 | 77 |
| August 1954 | 22 | 79 |
| July 1954 | 24 | 85 |
| Tromso, Norway | | |
| November 1954 | 19 | 71 |
| October 1954 | 20 | 75 |
| September 1954 | 21 | 77 |
| Upsala, Sweden | | |
| February 1955 | 13 | 53 |
| Wakkanai, Japan | | |
| December 1954 | 18 | 68 |
| Washington, D. C. | | |
| March 1955 | 13 | 52 |
| White Sands, New Mexico | | |
| February 1955 | 14 | 56 |
| Winnipeg, Canada | | |
| January 1955 | 17 | 65 |
| Yamagawa, Japan | | |
| December 1954 | 18 | 69 |

CRPL Reports

[A detailed list of CRPL publications is available from the Central Radio Propagation Laboratory upon request]

Daily:

Radio disturbance forecasts, every half hour from broadcast stations WWV and WWVH of the National Bureau of Standards.

Telephoned and telegraphed reports of ionospheric, solar, geomagnetic, and radio propagation data.

Semiweekly:

CRPL—J. North Atlantic Radio Propagation Forecast (of days most likely to be disturbed during following month).

CRPL—Jp. North Pacific Radio Propagation Forecast (of days most likely to be disturbed during following month).

Semimonthly:

CRPL—Ja. Semimonthly Frequency Revision Factors For CRPL Basic Radio Propagation Prediction Reports.

Monthly:

CRPL—D. Basic Radio Propagation Predictions—Three months in advance. (Dept. of the Army, TB 11-499-, monthly supplements to TM 11-499; Dept. of the Navy, DNC 13 () series; Dept. of the Air Force, TO 16-1B-2 series.) On sale by Superintendent of Documents, U. S. Government Printing Office, Washington 25 D. C. Members of the Armed Forces should address cognizant military office.

CRPL—F. Ionospheric Data. Limited distribution. This publication is in general disseminated only to those individuals or scientific organizations which collaborate in the exchange of ionospheric, solar, geomagnetic or other radio propagation data or in exchange for copies of publications on radio, physics and geophysics for the CRPL library.

Circulars of the National Bureau of Standards pertaining to Radio Sky Wave Transmission:

NBS Circular 462. Ionospheric Radio Propagation.

NBS Circular 465. Instructions for the Use of Basic Radio Propagation Predictions.

These circulars are on sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Members of the Armed Forces should address the respective military office having cognizance of radio wave propagation.

The publications listed above may be obtained without charge from the Central Radio Propagation Laboratory, unless otherwise indicated.
